

# Working

## The Board of Trustees NASB TEST MEMBER SCHOOL DISTRICT

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An Working of the Board of Trustees of NASB TEST MEMBER SCHOOL DISTRICT will be held March 26, 2026, beginning at 6:00 PM in the John Bonaiuto's Conference Room  
1301 Stockwell St  
Suite 1  
Lincoln, NE 68502.

### With a **Note**

The subjects to be discussed or considered in preparation for the next Regular Meeting of the Board or upon which any formal action may be taken are as listed below. Items do not have to be taken in the order shown on this meeting notice.

- A. Open the Meeting
  - A. Call to Order
  - B. Roll Call
  - C. Pledge of Allegiance
  - D. Opening Remarks
- B. Approve This Meeting's Agenda
- C. Approve Last Meeting's Minutes
- D. Consent Agenda
- E. General Public Comments
- F. Reports
  - A. Superintendent's Report

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School	Contract Days	FTE	Ratio	Salary	Benefits	Addtl. Comp
NASB TEST MEMBER SCHOOL DISTRICT	235.9	0.9	1.12	100819	29499	4478
Tri County Public Schools	253.3	1	1	125805	22175	583
East Butler Public Schools	223.3	0.75	1.33	108520	23832	2774
Weeping Water Public Schools	233.3	0.6	1.67	115293	19708	0
Friend Public Schools	230	1	1	116100	41414	1688
Dorchester Public Schools	225	0.67	1.5	103500	37453	84
Sterling Public Schools	242.5	1	1	110310	24489	600
Lewiston Consolidated School	212.5	0.67	1.5	95634	30980	0
Mead Public Schools	240	0.5	1	148000	19490	0
Array Average	232.5	0.77	1.25	115395	27443	716
Median	231.7	0.71	1.17	112802	24160	600
Midpoint	232.1	0.74	1.21	114099	25801	658

District Experience	Total Experience	Total Package	Adj. Package
23	27	135178	135253
11	27	148564	139906
13	26	135485	141591
22	38	135001	136269
6	20	159202	162180
12	24	141036	146050
6	16	135399	132396
14	40	126614	137144
30	30	167490	164961
14	28	143599	145062
12	26	138261	140748
13	27	140930	142905

School	# Units	# Positions	Salary	Benefits	Addtl. Comp
NASB TEST MEMBER SCHOOL DISTRICT	89	100	8972902	2625410	398560
Tri County Public Schools	3	3	377415	66526	1750
East Butler Public Schools	3	4	325561	71495	8323
Weeping Water Public Schools	3	5	345880	59124	0
Friend Public Schools	2	2	232200	82828	3376
Dorchester Public Schools	2	3	207000	74906	167
Sterling Public Schools	2	2	220620	48978	1200
Lewiston Consolidated School	2	3	191268	61959	0
Mead Public Schools	1	1	148000	19490	0

District Experience	Total Experience	Total Package
2026	2402	12030823
34	82	445691
38	77	406454
67	115	405004
13	41	318404
24	47	282073
12	31	270798
29	80	253227
30	30	167490

<b>Org as identified in Sparq</b>	<b>Sparq Org</b>
Abernathy ISD	1111
Abilene Independent School District	2274
Academy ISD	2299
Agua Dulce Independent School District	1990
Alamo Heights Independent School District	713
Alba-Golden ISD	1895
Aldine ISD	1722
Atledo ISD	871
Alice ISD	868
Alief ISD	770
Allen Independent School District	855
Alpine ISD	2310
Alvarado ISD	724
Alvin Community College	2204
Alvin Independent School District	1295
Amarillo College	1957
Amarillo ISD	1931
Anahuac Independent School District	1870
Anderson-Shiro CISD	633
Andrews ISD	1899
Angelina College	2752
Angleton Independent School District	1874
Anna Independent School District	849
Anson ISD	2224
Anthony ISD	819
Anton ISD	2285
Aquilla Independent School District	2211
Aransas Pass ISD	924
Archer City ISD	2988
Argyle ISD	1395
Arlington ISD	2978
Arp ISD	1862
Athens Independent School District	635
Atlanta ISD	888
Aubrey Independent School District	1857
Avery ISD	761
Azle Independent School District	1367
Baird ISD	2000
Ballinger ISD	2226
Balmorhea ISD	2166
Bandera Independent School District	1846
Banquete ISD	1705
Barbers Hill Independent School District	1110

Bartlett ISD	1020
Bastrop Independent School District	1914
Bay City ISD	2101
Beaumont ISD	748
Beckville ISD	1964
Beeville ISD	2183
Bells ISD	2225
Bellville ISD	2334
Belton Independent School District	1873
Ben Bolt - Palito Blanco ISD	2197
Benavides ISD	2230
Big Sandy ISD - Polk County	2347
Big Sandy ISD-Upshur County	1918
Big Spring Independent School District	723
Birdville Independent School District	2178
Bishop Consolidated Independent School District	2297
Blackwell Consolidated Independent School District	2113
Blanco ISD	1855
Bland ISD	2075
Blinn College - Brenham Regular	1319
Bloomburg Independent School District	2233
Blooming Grove ISD	1348
Bloomington Independent School District	959
Blue Ridge ISD	845
Bluff Dale ISD	2721
Blum ISD	2351
Boerne Independent School District	1350
Boles ISD	1301
Bonham ISD	866
Borden County ISD	1296
Borger ISD	904
Bosqueville ISD	1003
Bowie Independent School District	878
Boyd ISD	1611
Boys Ranch ISD	697
Brackett ISD	1723
Brazos ISD	1318
Brazosport College	1854
Brazosport Independent School District	877
Breckenridge ISD	1647
Brenham ISD	1856
Bridge City Independent School District	905
Bridgeport ISD	647
Broaddus ISD	2228

Brock ISD	803
Brooks County ISD	2016
Brownfield ISD	674
Brownsboro ISD	1273
Brownsville ISD	2175
Brownwood Independent School District	988
Bryan Independent School District	2246
Buckholts Independent School District	2350
Buena Vista ISD	712
Buffalo ISD	2545
Bullard Independent School District	2490
Buna Independent School District	820
Burkburnett Independent School District	1896
Burkeville ISD	1892
Burleson ISD	1384
BURNET CONSOLIDATED I.S.D.	1041
Burton ISD	2593
Bushland ISD	1767
Bynum ISD	2116
Caddo Mills ISD	669
Calallen ISD	934
Caldwell ISD	680
Calhoun County ISD	2207
Callisburg ISD	2750
Cameron ISD	1226
Canadian ISD	789
Canton ISD	2194
Canutillo ISD	864
Canyon ISD	788
Carlisle ISD	762
Carrizo Springs C.I.S.D.	861
Carrollton-Farmers Branch ISD	631
Carthage ISD	1182
Castleberry Independent School District	1090
Cedar Hill ISD	1600
Celeste ISD	1411
Celina Independent School District	758
Center ISD	651
Center Point ISD	1923
Central Heights Independent School District	1517
Central ISD	2291
Channelview ISD	791
Chapel Hill ISD -Titus County	1760
Chapel Hill ISD-Smith County	1759

Cherokee Independent School District	1583
Chester ISD	2687
Chico ISD	2255
Childress ISD	2242
Chilton ISD	1853
China Spring ISD	2238
Chisum ISD	2316
Christoval ISD	1754
City View ISD	2280
Clarksville ISD	731
Claude ISD	1169
Clear Creek ISD	1940
Cleburne Independent School District	1684
Cleveland ISD	1682
Clifton ISD	2177
Clint Independent School District	919
Clyde CISD	661
Coahoma ISD	984
Coastal Bend College	2027
Coldspring-Oakhurst CISD	672
College of the Mainland	2271
Collin College	1010
Collinsville ISD	2262
Colorado ISD	2243
Columbia - Brazoria ISD	1290
Columbus Independent School District	1798
Comal ISD	1083
Comanche ISD	664
Comfort ISD	652
Commerce ISD	1127
Community ISD	1208
Como-Pickton CISD	2314
Connally ISD	690
Conroe ISD	991
Cooper ISD	2277
Coppell Independent School District	1721
Copperas Cove Independent School District	665
CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT	898
Corrigan-Camden ISD	1701
Corsicana Independent School District	642
Cotulla ISD	638
Coupland Independent School District	2708
Covington ISD	1930
Crandall ISD	2100

Crane Independent School District	2491
Cranfills Gap ISD	1866
Crawford ISD	2983
Crockett County Consolidated Common School District	857
Crockett Independent School District	891
Crosby ISD	1018
Crosbyton CISD	972
Cross Plains ISD	2668
Cross Roads Independent School District	2096
Crowell ISD	655
Crystal City Independent School District	1587
Cuero Independent School District	718
Culberson County - Allamoore ISD	2249
Cumby ISD	2114
Cypress-Fairbanks ISD	668
Daingerfield-Lone Star ISD	986
Dalhart ISD	1129
Damon Independent School District	1945
Danbury Independent School District	944
Darrouzett ISD	1916
Dayton Independent School District	639
Decatur ISD	648
DeKalb ISD	892
Del Valle ISD	675
Dell City Independent School District	1300
Denison ISD	774
Denton ISD	949
Denver City Independent School District	1942
DeSoto Independent School District	947
Detroit ISD	1724
Devers ISD	745
Devine ISD	955
Dew ISD	1865
Deweyville ISD	746
D'Hanis Independent School District	990
Diboll ISD	2232
Dickinson Independent School District	2257
Dilley Independent School District	852
Dime Box ISD	773
Divide ISD	2485
Donna Independent School District	1299
Doss CCSD	1354
Douglass ISD	2252
DRIPPING SPRINGS INDEPENDENT SCHOOL DISTRICT	634

Driscoll ISD	1438
Dublin Independent School District	865
Dumas Independent School District	1196
Duncanville ISD	858
Eagle Mountain-Saginaw ISD	1017
Eagle Pass ISD	2009
Early ISD	2033
East Chambers ISD	715
Ector County Independent School District	1406
Ector ISD	2492
Edcouch-Elsa ISD	1455
Edgewood ISD-Bexar County	844
Edgewood ISD-Van Zandt County	1298
Edinburg Consolidated Independent School District	1044
Edna ISD	1614
Education Service Center Region 13	1949
Education Service Center, Region 20	1988
El Campo Independent School District	901
Electra Independent School District	2552
Elgin Independent School District	627
Elkhart ISD	1307
Elysian Fields ISD	2644
Ennis ISD	862
Era ISD	846
Eustace ISD	722
Evadale ISD	2044
Evant ISD	1843
Everman ISD	1454
Fabens ISD	1346
Fairfield ISD	695
Falls City ISD	1937
Farmersville ISD	1008
Fayetteville Independent School District	1064
Ferris ISD	2326
Flatonia ISD	1774
Florence Independent School District	677
Floresville ISD	1706
Flour Bluff Independent School District	1439
Floydada Collegiate ISD	2287
Follett ISD	2021
Forney ISD	637
Forsan ISD	834
Fort Bend Independent School District	649
Fort Elliott CISD	2803

Fort Hancock Independent School District	2300
Fort Sam Houston ISD	1984
Frank Phillips College	2308
FRANKSTON ISD	2208
Fredericksburg ISD	825
Freer ISD	1001
Frenship ISD	1779
Friona ISD	1262
Frisco ISD	2014
Frost ISD	2331
Fruitvale ISD	1938
Gainesville ISD	2214
Galena Park ISD	1860
Galveston College	1505
Galveston Independent School District	1941
Ganado ISD	2306
Garland Independent School District	1084
Garner ISD	730
Garrison ISD	2055
Gary ISD	884
Gatesville ISD	910
Georgetown ISD	966
Giddings ISD	710
Gilmer ISD	1768
Gladewater Independent School District	2202
Glasscock County ISD	1363
Glen Rose Independent School District	732
Godley ISD	2605
Goldthwaite CISD	881
Goliad ISD	2600
Gonzales Independent School District	950
Goose Creek CISD	1195
Gordon ISD	1081
Grady ISD	987
Graham ISD	800
Granbury ISD	772
Grand Prairie Independent School District	948
Grand Saline ISD	824
Grandfalls-Royalty Independent School District	3189
Grandview ISD	1755
Granger ISD	1848
Grape Creek ISD	734
Grapevine-Colleyville ISD	1198
Grayson College	1233

Greenville ISD	1948
Greenwood Independent School District	729
Gregory-Portland ISD	1396
Groesbeck ISD	670
Groom Independent School District	1884
Gunter ISD	1238
Gustine ISD	2784
Hale Center ISD	2278
Hallettsville ISD	2193
Hallsville ISD	1976
Hamilton ISD	951
Hamlin Collegiate ISD	917
Hamshire-Fannett ISD	792
Happy ISD	2251
Hardin ISD	1123
Hardin-Jefferson ISD	952
Harlandale ISD	1981
Harleton Independent School District	1864
Harlingen Consolidated Independent School District	1015
Harmony ISD	942
Harts Bluff ISD	937
Haskell CISD	2723
Hawkins Independent School District	678
Hays CISD	1858
Hearne ISD	2705
Hedley Independent School District	2684
Hemphill ISD	2578
Hempstead Independent School District	2241
Henderson ISD	958
Henrietta ISD	755
Hereford ISD	2218
Hico ISD	656
Hidalgo ISD	2062
Highland ISD	1398
Highland Park ISD- Dallas County	2024
Highland Park ISD-Potter County	935
Hill College	1013
Hillsboro ISD	953
Hitchcock ISD	1009
Holland ISD	2290
Holliday Independent School District	1881
Hondo Independent School District	640
Honey Grove I.S.D.	1224
Hooks ISD	2309

Houston Community College	3045
Hubbard ISD - Hill County	2013
Huckabay ISD	975
Hudson ISD	1672
Huffman ISD	2641
Huntington ISD	946
Huntsville ISD	736
Hutto ISD	749
Idalou ISD	2327
Ingleside ISD	787
Iowa Park CISD	2788
Ira ISD	1440
Irving Independent School District	828
Italy Independent School District	2171
Itasca Independent School District	835
Jacksonville ISD	1207
Jarrell ISD	1933
Jasper ISD	2063
Jayton-Girard ISD	2477
Jefferson Independent School District	982
Jim Hogg County ISD	2328
Jim Ned Consolidated Independent School District	1441
Joshua Independent School District	759
Jourdanton Independent School District	1836
Judson ISD	1434
Junction Independent School District	753
Karnack ISD	3197
Karnes City ISD	977
Kaufman Independent School District	2293
Keene ISD	1849
Keller Independent School District	2320
Kelton ISD	2321
Kemp Independent School District	2338
Kenedy County-Wide Common School District	2201
Kenedy ISD-Karnes County	1746
Kennard ISD	1676
Kennedale Independent School District	2219
Kerens Independent School District	897
Kermit ISD	2213
Kerrville Independent School District	684
Kilgore College	1011
Kilgore ISD	920
Killeen Independent School District	1051
Kingsville ISD	2237

Kirbyville CISD	954
Klein Independent School District	921
Kountze ISD	1403
Krum ISD	717
LA FERIA INDEPENDENT SCHOOL DISTRICT	1835
La Grange Independent School District	766
La Porte Independent School District	767
La Pryor ISD	960
La Vega ISD	870
La Vernia ISD	1470
La Villa ISD	1962
Lackland ISD	1983
Lake Dallas Independent School District	859
Lake Travis Independent School District	900
Lake Worth ISD	842
Lamar CISD	2273
Lamesa ISD	686
Lampasas Independent School District	1901
Lancaster ISD	743
LaPoynor ISD	700
Laredo College	2181
Laredo Independent School District	2520
Lasara Independent School District	2296
Latexo Independent School District	2196
Leakey ISD	706
Leander ISD	795
Lee College	747
Lefors ISD	973
Leon ISD	1996
Levelland ISD	2283
Lewisville Independent School District	1194
Lexington ISD	1257
Liberty Hill ISD	929
Liberty Independent School District	725
Liberty-Eylau ISD	822
Lindale ISD	2191
Linden-Kildare CISD	739
Lindsay ISD	1875
Lipan ISD	1947
Little Cypress-Mauriceville CISD	807
Little Elm ISD	860
Livingston ISD	1664
Llano ISD	681
Lockhart Independent School District	714

London Independent School District	996
Lone Oak Independent School District	2315
Longview ISD	2235
Lorena ISD	933
Lorenzo ISD	2435
Los Fresnos CISD	887
Louise ISD	2107
Lovejoy Independent School District	856
Lovelady Independent School District	1078
Lubbock Independent School District	869
Lubbock-Cooper ISD	1703
Luling ISD	1156
Lumberton ISD	851
Lyford CISD	1489
Lytle Independent School District	1872
Mabank Independent School District	1915
Madisonville CISD	2059
Magnolia ISD	793
Malakoff Independent School District	653
Manor Independent School District	938
Mansfield ISD	1116
Marathon ISD	805
Marble Falls ISD	1042
Marfa ISD	1076
Marion ISD	1985
Marlin Independent School District	1890
Marshall Independent School District	798
Mart ISD	2436
Martin's Mill ISD	2240
Martinsville ISD	1280
Mason ISD	1905
Mathis Independent School District	2742
Maud ISD	1889
Maypearl ISD	863
McAllen Independent School District	1045
McCamey ISD	2015
McDade ISD	2814
McKinney ISD	2118
McLean ISD	2654
McMullen County ISD	879
Meadow ISD	2250
Medina Independent School District	702
Medina Valley ISD	760
Melissa ISD	716

Memphis ISD	847
Mercedes ISD	2182
Merkel Independent School District	1399
Mesquite ISD	1314
Mexia ISD	1752
Meyersville ISD	2286
Miami Independent School District	1883
Midland Independent School District	641
Midlothian ISD	1700
Midway ISD	728
Milano ISD	1771
Mildred ISD	1032
Miles ISD	1337
Miller Grove ISD	976
Millsap ISD	1603
Mineola Independent School District	2269
Mineral Wells Independent School District	957
Mission Consolidated Independent School District	741
Monahans-Wickett-Pyote ISD	1958
Monte Alto ISD	784
Montgomery ISD	2239
Moody Independent School District	2220
Motley County ISD	1887
Moulton ISD	1960
Mount Pleasant Independent School District	768
Mt. Vernon Independent School District	1766
Muenster ISD	1781
Muleshoe Independent School District	1765
Mullin ISD	1151
Munday CISD	1021
Murchison ISD	2231
Nacogdoches ISD	786
Natalia ISD	688
Navarro Independent School District	1383
Navasota ISD	1869
Neches ISD	2253
Nederland Independent School District	932
Needville ISD	1347
New Boston ISD	1126
New Braunfels ISD	1512
New Caney Independent School District	2256
New Deal ISD	2798
New Diana ISD	872
New Waverly ISD	883

Newton ISD	1888
Nixon-Smiley CISD	650
Nocona Independent School District	2117
Nordheim ISD	2206
Normangee ISD	776
North East Independent School District	1897
North Hopkins ISD	2304
North Lamar ISD	1049
North Zulch ISD	797
Northeast Texas Community College	1917
Northside ISD	2695
Northwest Independent School District	1405
Odessa College	2234
O'Donnell ISD	2081
Olton ISD	962
Onalaska Independent School District	1005
Orange Grove ISD	2329
Orangefield Independent School District	2091
Ore City ISD	1878
Overton ISD	1967
Paducah ISD	2187
Palacios Independent School District	1210
Palestine ISD	1246
Palmer Independent School District	683
Pampa Independent School District	2186
Panhandle ISD	967
Panola College	1189
Paradise ISD	2289
Paris ISD	687
Paris Junior College	1225
Pasadena Independent School District	1894
Pawnee ISD	1961
Pearsall ISD	632
Peaster ISD	2318
Pecos-Barstow-Toyah ISD	1877
Perryton Independent School District	689
Petersburg ISD	2344
Petrolia CISD	708
Pettus Independent School District	1859
Pewitt CISD	654
Pflugerville ISD	629
Pharr-San Juan-Alamo ISD	2163
Pilot Point Independent School District	2105
Pine Tree Independent School District	790

Pittsburg ISD	1450
Plains Independent School District	823
Plainview ISD	1882
Pleasant Grove Independent School District	841
PLEASANTON INDEPENDENT SCHOOL DISTRICT	1980
Plemons-Stinnett-Phillips CISD	1002
Ponder Independent School District	2363
Port Aransas ISD	671
Port Arthur ISD	2236
Port Neches-Groves ISD	1419
Post ISD	1094
Poth ISD	699
Pottsboro ISD	829
Prairie Lea ISD	2719
Prairiland ISD	2317
Premont ISD	2221
Presidio ISD	827
Princeton Independent School District	1770
Prosper Independent School District	2084
Quanah ISD	2244
Queen City ISD	2198
Quinlan Independent School District	2079
Quitman Independent School District	926
Rains ISD	644
Ralls Independent School District	1946
Ramirez CSD	2335
Randolph Field Independent School District	1681
Raymondville ISD	912
Reagan County ISD	799
Red Lick Independent School District	2324
Red Oak ISD	2272
Redwater ISD	836
Refugio ISD	2532
Region 10 Education Service Center	1164
Region 11 Education Service Center	848
Region 12 Education Service Center	1851
Region 16 Education Service Center	906
Region 17 Education Service Center	2601
Region 18 Education Service Center	756
Region 3 Education Service Center	1096
Region 4 Education Service Center	2173
Region 5 Educational Service Center	1776
Region 7 Education Service Center	2710
Region 8 Education Service Center	2282

Region 9 Education Service Center	2227
Region One Education Service Center	1388
Ricardo Independent School District	1902
Rice CISD	663
Rice Independent School District	1016
Richardson ISD	705
Rio Vista ISD	916
River Road ISD	923
Rivercrest Independent School District	2164
Riviera ISD	2302
Robinson ISD	983
Robstown ISD	1504
Roby Consolidated ISD	2012
Rochelle ISD	1073
Rockdale ISD	2212
Rockport-Fulton Independent School District	854
Rocksprings ISD (069901)	1351
Rockwall Independent School District	2276
Rogers ISD	1048
Roma ISD	2323
Roosevelt Independent School District	727
Ropes Independent School District	2792
Roscoe Collegiate ISD	2397
Rosebud-Lott ISD	750
Round Top-Carmine ISD	2086
Royal Independent School District	2229
Royse City ISD	2210
Runge ISD	882
Rusk Independent School District	875
S & S CISD	1436
Sabine Pass Independent School District	843
Salado ISD	1288
Sam Rayburn ISD	2332
San Angelo ISD	899
San Antonio ISD	1982
San Benito Schools	2809
San Diego Independent School District	1179
San Elizario ISD	2311
San Felipe Del Rio CISD	775
San Isidro ISD	2319
San Marcos CISD	981
San Perlita I.S.D.	2203
San Saba ISD	646
San Vicente ISD	2986

Sands CISD	2028
Sanford-Fritch ISD	693
Sanger Independent School District	666
Santa Gertrudis ISD	2189
Santa Maria Independent School District	3195
Santa Rosa Independent School District	1671
Santo ISD	1128
Savoy ISD	2539
Schertz-Cibolo-Universal City ISD	1900
Schleicher County ISD	2739
Scurry-Rosser ISD	838
Sealy ISD	1432
Seguin ISD	867
Seminole Independent School District	719
Seymour ISD	1433
Shallowater ISD	2205
Shamrock ISD	2330
Sharyland ISD	2078
Sheldon ISD	1876
Shepherd ISD	673
Silsbee Independent School District	667
Silverton ISD	692
Simms ISD	2061
Sinton ISD	794
Sivells Bend ISD	2653
Skidmore-Tynan ISD	1511
Slaton Independent School District	726
Slidell ISD	2602
Smithville ISD	1738
Snook ISD	1904
Snyder ISD	936
Socorro ISD	2313
Somerset Independent School District	2259
Somerville ISD	1777
Sonora ISD Administration	1303
South San Antonio ISD	2343
South Texas ISD	1663
Southside ISD	874
Southwest ISD	1979
Southwest Texas Junior College	1229
Spearman ISD	2303
Splendora ISD	1602
Spring Branch Independent School District	889
Spring Hill ISD	771

Springlake-Earth ISD	2010
SPRINGTOWN ISD	1407
Spur Independent School District	2247
Spurger ISD	1803
Stafford Municipal School District	1043
Stamford ISD	1437
Stanton ISD	2281
Stephenville Independent School District	1799
Sterling City ISD	2165
Stockdale ISD	2051
Stratford ISD	2307
Sudan Independent School District	2209
Sulphur Bluff ISD	1014
Sulphur Springs Independent School District	1046
Sunnyvale ISD	1000
Sunray ISD	956
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Sweetwater ISD	2294
Taft ISD	645
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Tatum Independent School District	2254
Taylor ISD	2401
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Texarkana College	1850
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Thorndale Independent School District	1847
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Three Rivers ISD	1934
Three Way ISD	2673
Throckmorton Collegiate ISD	2474
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Troy Independent School District	907
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Tuloso-Midway ISD	643
Tyler ISD	1932
Union Grove ISD	2217
United ISD	2029
Uvalde Consolidated Independent School District	1047
Valley Mills ISD	2037
Valley View ISD - Hidalgo County	922
Valley View ISD-Cooke County	1871
Van Alstyne ISD	850
Van Independent School District	1879
Van Vleck ISD	742
Vega ISD	2068
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Veribest ISD	2339
Vernon Independent School District	1442
Vidor Independent School District	1004
Waco Independent School District	1965
Waelder ISD	876
Waller ISD	737
Warren ISD	1991
Waskom ISD	1052
Water Valley ISD	2222
Waxahachie Independent School District	765
Weatherford Independent School District	992
Webb CISD	2612
Weimar ISD	785
Wellington ISD	2098
Wellman-Union ISD	2040
WESLACO INDEPENDENT SCHOOL DISTRICT	2555
West Hardin County CISD	989
West Independent School District	821
West Orange-Cove CISD	2102
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White Deer Independent School District	1414
White Oak ISD	2248

White Settlement ISD	1404
Whitehouse ISD	1841
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Whitney Independent School District	2245
Wichita Falls Independent School District	676
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Willis ISD	2995
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Wilson ISD	2779
Wimberley Independent School District	2301
Windthorst ISD	1118
Wink-Loving ISD	1184
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Woodville ISD	769
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Zapata County Independent School District	2305





































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# The Software Development Process

## Goal

This document defines the processes for designing, developing, testing, and releasing software.

The Software Development Department's keywords are Team, Efficiency, and Quality (collectively TEQ). These concepts show up throughout this document. **Team** is first and means we focus on helping each other – this includes development help and training, but also involves code reviews, team testing, and design assistance. Supporting our software (via communications with customers and other stakeholders and partners, bug fixes, testing, etc.) generally takes priority over new development. The quick definition is to make sure you are available to answer other people's questions and solve their problems. A little deeper is to answer a support ticket, test someone else's code, review pull requests, or co-develop new features.

**Efficiency** covers both time and money, but time is the factor developers most readily control. Be efficient with your time throughout the day and this software development process. If you find yourself getting stuck for too long, bring in someone else – another developer, the CPO, another stakeholder or customer, etc. Keep distractions (social media, news, friends, messaging, email, etc.) to a minimum. The Pomodoro Technique of eliminating all distractions for a set period to allow yourself to deeply focus on the code is useful. The quick definition is to write code that performs well without using too many resources. A little deeper is to write software that saves customers' time or money, lower Sparq's server or processing costs, making sites easier to use, or improving the maintainability of our codebase.

**Quality** is of equal importance to the other keywords. Quality means releasing more features with fewer issues. Testing is a large part of quality, especially automated tests. Code reviews are also important. But quality starts with good communication – planning, defining, and design – to better understand what needs to be delivered. New and useful features are also a component of Quality, as useful software often needs to be improved and updated just to maintain, let alone improve. Focusing on each step of this development process will improve quality. The quick definition is no bugs in our releases. A little deeper is to improve usability, accessibility, reliability, or testability.

## The Process

Plan. Develop. Ship. Repeat.

The most important thing to remember is that this process is quick and flexible. It is not a rigid system from one step to the next, but a fluid one where we may jump around, as necessary. Steps also bleed into each other, without clearly defined walls between them. A project may also be stopped (or even started) at any point in the process.



## Planning

Ideation can be initiated by anyone. If you have an idea for a new program or project, or a new feature for an existing program or project, please inform any of your supervisors. Customers and business stakeholders and even competitors may introduce new ideas and if you get something, please pass it onto one of your supervisors.

The CPO prioritizes ideas and tasks, with direction from the CEO and help from the software engineers, support, and other stakeholders.

The CPO will organize the team to work on the project, from one person to many. With the help of the assembled team, the CPO will set the timeline for when the project should start, based on when it needs to be finished. The CPO will monitor the progress of the project via updates from the team. The CEO should not be updated unless specifically requested.

## Defining

For all projects of any size and scope you will create User Stories in our project management tool (JIRA) that explain how the software or feature will be used and changed. All the different scenarios and steps for this feature should be defined.

Ideally User Stories would be written by business stakeholders, or possibly even customers, but most often it will fall onto software engineers. User Stories should be readable by non-tech people. Share the User Stories we create with the business stakeholders and/or customers to ensure our understanding of what needs to be done matches theirs; keep them in the loop throughout the development process. If the customers and/or stakeholders are unable to verify the design, have at least one other Software Engineer review it to ensure our change will fully satisfy their request.

User Stories will outline all that is expected with this change. As such, they may span multiple actual releases of the software (as Epics in Jira). They will also be used to write the tests that show the project is complete, and so should be presented during code reviews.

A User Story is written from the perspective of a specific user role. Roles to keep in mind include: end users, administrative users, association staff, anonymous or unauthenticated users, potential customers, etc. For each impacted role, explain the benefit of the feature, or the reason it is being implemented. Then define one (or likely more than one) scenario(s) that define the feature; scenarios explain how the feature or software will be used, via this code change, they define what is minimally acceptable to complete this project, and they will outline the tests that will be written. In Jira, sub-tasks are very handy mechanisms for splitting out larger tasks.

Keep things short to allow for smaller, quicker releases. Better User Stories help us avoid big changes and big releases.

Software engineers should help guide other stakeholders when writing User Stories. The idea may be theirs, but the software is ours, and we must ensure it follows our standards, is maintainable, and is high quality. Consult your supervisor if you have questions or concerns.

## Designing

In this phase, quickly outline or diagram the User Interface changes, if any. This is not necessary for small pages or quick changes but should be done for anything major (use your own discretion or ask your supervisor). There is no specific format or method or tool for designs. Several iterations are likely.

Also determine (and document via our project management tool) any other integration changes. This includes new or updated services, databases, document repositories, etc. Try to find all areas that will be impacted.

Keep things simple.

## Building

This is the development phase.

Most of our programs are developed in Visual Studios. C# is the language of choice. For new web applications, .NET Core MVC or Angular is preferred. JavaScript will be used in many web applications; jQuery, React, TypeScript, and other open source tools may be used.

If there is a third-party tool you need, please contact your supervisor. Be prepared to explain why it is needed and why it is better than its competitors (if any) and/or tools we already have.

Keep Visual Studios up-to-date. Where possible, upgrade older projects to newer versions; this includes Visual Studio, .NET, NuGet packages, and web-referenced frameworks. Also keep your development environment up-to-date, including Windows, SQL, etc.

Bitbucket is hosted on-premise and will be used to store all our source code. Feel free to check in early and often; try to get the latest source via a Pull before checking in, too. Consult the [Git, Bitbucket, and Sourcetree document](#) for more information.

Before deviating from these norms, please contact the CPO.

Our style guidelines will follow the defaults in Visual Studios for things like indentations, spacing, brace and bracket and parentheses-placement, etc. For other conventions, check out this link:

[https://www.mediawiki.org/wiki/Manual:Coding\\_conventions](https://www.mediawiki.org/wiki/Manual:Coding_conventions)

Our development practices will most closely align with Behavior-Driver Development (BDD). BDD is an extension of Test-Driven Development (TDD) and may closely resemble Acceptance Test-Driven Development (ATDD). They all blend together; we will not get hung up on the name. Here is our process:

Take the User Stories created during the Defining stage and create one or more Unit Tests for each one. Via these tests, ensure the code is doing what it is supposed to be doing. Ensure the code is NOT doing anything it should not be doing (if you know explicitly what should not happen, test that). Write tests designed to pass; also write tests designed to fail.

Do not be stuck in the test-first mantra. Code-first programming is still quite valid; use it when needed. We may want to write the tests before the code, but ultimately, we just want both.

User Stories and other Design elements may change throughout the process. Be prepared for it. Keep communication channels open with all the stakeholders as the earlier we determine changes are necessary, the easier it will be. Face-to-Face communication is preferred to help us build better relationships and avoid delays, but keep it as-needed, typically without scheduling regular meetings. If something does change, remember to change the tests, too, and update the project management tool.

Use SOLID principles when writing your programs to make them more resilient, more testable, and improve their quality.

- S: Single Responsibility Principle
- O: Open/Closed Principle
- L: Liskov Substitution Principle
- I: Interface Segregation Principle
- D: Dependency Inversion Principle

**Single Responsibility Principle.** Classes and other programmatic structures should only do one thing. They should only have one reason to change.

They may have many different functions and properties. But they only “do” one thing. This should help us create loosely coupled code – meaning a change to this class won’t reverberate throughout the entire program, but instead only to those other classes the use it.

For example, if your program displays web pages, then the Content of the page (the data) and the Format of the page (the layout, the HTML, the CSS) should not be in the same class. This is why in MVC the Views are separated from their Models and Controllers (and data access, etc.). If they were combined, it would introduce two reasons to change – substantive versus cosmetic – and that’s what we want to avoid.

**Open/Closed Principle.** The single responsibility classes we create should be “open” for extension, but “closed” for modification. Open for extension essentially means we won’t add to this class without a new User Story, and then it should be done with inheritance and delegation as much as possible. Closed for modification means there have been unit tests written for it, that pass, and it has been released.

This sounds draconian but it really means use abstract base classes and interfaces. The classes that implement or inherit these abstractions can and do change. But changes should be avoided in the base classes and interfaces themselves – instead, just create new ones. (But if a change is needed, make the change, don’t be hamstrung by this process.)

It may also be referred to as Protected Variations or Information Hiding.

**Liskov Substitution Principle.** This principle refers to subtyping and inheritance. Thankfully, C# and VB.net (and almost all other modern languages) handle most of this for us.

If we have a class *Animal*, we can have subclasses (or subtypes) *Cat* and *Dog*. If we have routines that expect an *Animal*, then we could provide instances of either *Cat* or *Dog*, or of *Animal* itself. But if we have a routine that accepts only *Cat* then neither *Dog* nor *Animal* would be accepted. This is all handled by .NET for us.

Preconditions cannot be strengthened in a subtype. Postconditions cannot be weakened in a subtype. This means that a subtype can only add value, it cannot subtract any. For example, a function in a subtype cannot change a parameter from double to integer because integer would be more limiting than double (a precondition). Likewise, a function cannot be changed to return double from integer (a postcondition). This is mostly handled by .NET for us, too.

Something that .NET doesn’t handle is the idea that a subtype should not throw any new exceptions that a supertype does not throw. So if *Animal* is a fully functioning class (and not abstract), and it has a function called *Feed*, then neither *Cat* nor *Dog* should throw an exception out of the *Feed* function that *Animal* itself doesn’t throw out of this function. But keeping inheritance in mind, *Cat* and *Dog* can throw a new exception if it inherits from an exception that *Animal* throws.

Also known as Substitutability, or Strong Behavioral Subtyping, or Design by Contract.

**Interface Segregation Principle.** This is another rule that involves inheritance. The rule means no subtype (or client) should be forced to implement a method it does not use.

Continuing a previous example, if we had an interface of *Animal*, we should not have a function on it for *WagTail*. Not all Animals have tails. So if we created a *Chimpanzee* or *Octopus* class that tries to implement our *Animal* interface, they would be saddled with a function that they cannot use. Instead, we could create another interface called *AnimalWithTail* that itself implements *Animal* and could be used for our *Cat* and *Dog* implementations but isn't needed for everything else. (Or just *WithTail* and the only thing it does is *WagTail*.)

In short, create more interfaces or abstract classes. Don't force things together.

**Dependency Inversion Principle.** Though last, this may be the most important. High-Level components (like an MVC View or a Windows Form or Service) should not be dependent on Low-Level components (like databases or web services). Instead, both layers rely on abstractions.

The High-Level component should own or introduce the abstraction used by the Low-Level component. For example, a webpage might have interfaces for getting Users and Organizations from some datasource. But the webpage doesn't care what the datasource actually is, so it only uses the interfaces. Meanwhile, a data access class could implement these interfaces – one class could even implement them all – and get the data from the database. Or a couple web services could implement these interfaces and get the data from CRM. The High-Level webpage is not concerned with where the information comes from, and the Low-Level data access classes aren't concerned with what is being done with the information – they both just use the interfaces, the abstractions. If another webpage comes along that needs the same information (or a phone app, or a Windows Service), they could use the same abstraction, and the same Low-Level implementation. If we need to change from a database to CRM (or Azure or MySQL or MongoDB or saved documents), all we would need to do is create a new Low-Level implementation of the interface without changing the High-Levels (webpages, apps, etc.).

This website has more information on SOLID, including examples: <https://www.c-sharpcorner.com/UploadFile/damubetha/solid-principles-in-C-Sharp/>

Following SOLID principles will allow for more agility. This means the code will be able to change, the program will be able to change, the industry will be able to change, our customers will change, and/or the User Stories will be able to change, and we will be able to adapt to that change.

Many of the SOLID principles are tied to interfaces and abstract classes. This is what makes our code flexible and agile. First, we can move to a different back end or release a new front end without changing as much of the code. Second, we can write more Unit Tests by substituting a “fake” implementation of the interface or abstract class that removes unwanted integrations, which is known as Mocking and Dependency Injection.

SOLID is what we want to do; Mocking and Dependency Injection are how we will do it. Keep them in mind when writing your code and your tests. Mocking is where you create “fake” implementations of your interfaces or abstract classes for testing purposes, in your test projects; it is a very common theme

in Unit Tests. Dependency Injection is how we can insert our fake classes into the real code; it is how we will de-couple our code (the UI from the backend database, for example). Please find Mocking under Testing, and Dependency Injection just below.

**Dependency Injection.** A dependency is an object that is required for another process or routine to run. Injection is putting an object into another. Dependency Injection is just that – inserting the required objects when and where they’re needed.

Simple, right? Here’s a programmatic example. Say we’re using our *Cat* class from before. On this class is a property for class *Collar*; this means that our *Cat* class has a dependency on *Collar*. That covers the dependency part, but what about Injection? Well, the Injection refers to how the *Collar* value is filled or supplied. Injection tells us the value for *Collar* should be supplied by the consuming code, not by *Cat* itself (the cat doesn’t determine what collar it wears, the owner does). So the *Collar* value should be supplied in the constructor for *Cat* (Constructor Injection), or via a property that is NULL until it is supplied outside of *Cat* (Property Injection).

This is a wrong way to do it because the class itself is supplying the value:

```
private Collar collar = new BlueWeavedCollarForCats();
```

Instead, it should look like one of these examples (Constructor and Property injection, respectively):

```
private Cat cat = new Cat(new BlueWeavedCollarForCats());
```

```
private Cat cat = new Cat() { collar = new BlueWeavedCollarForCats() };
```

In the second set of examples, the instance of collar is being supplied outside of *Cat* – by whatever is calling *Cat*. We are Injecting the *Collar* Dependency into *Cat*. Instead of worrying about these dependencies, the class should focus on the one thing it is designed to do (and whatever a *Cat* is designed to do, it’s not to create a *Collar*).

Dependency Injection is especially useful for Unit Tests, so you can actually lock onto a unit of code by avoiding all the other dependencies.

This is how Dependency Injection works. But there’s still another important piece, and that’s the Dependency Injection Container (DI Container). The DI Container is not required (as shown in the code examples above), but it is almost always used to help resolve dependencies in a complex program (especially when the dependencies have been abstracted as they should be).

DI Containers do use Reflection, which does impact performance. But the impact is minimal, and the benefit can be great.

A DI Container is built into .NET Core web apps. You can read more about it here:

<https://docs.microsoft.com/en-us/aspnet/core/fundamentals/dependency-injection?view=aspnetcore-2.2>

Many other DI Containers have been created including Autofac (shown in the examples), Ninject, Unity, and Castle Windsor. They all work similarly, including the .NET Core one:

1. **Register the abstractions with a concretion.** An abstraction is the Interface, the Concretion is the class that implements the Interface. At the start of the program (in the Global.asax during Application\_Start for a typical .NET web app) you register your interfaces with the DI Container and the concretion.

```
protected void Application_Start()
{
    AreaRegistration.RegisterAllAreas();
    GlobalConfiguration.Configure(WebApiConfig.Register);
    FilterConfig.RegisterGlobalFilters(GlobalFilters.Filters);
    RouteConfig.RegisterRoutes(RouteTable.Routes);
    BundleConfig.RegisterBundles(BundleTable.Bundles);

    ContainerBuilder builder = new ContainerBuilder();

    builder.RegisterType<CustomerRepository>().As<ICustomerRepository>();
    builder.RegisterAssemblyTypes(Assembly.GetExecutingAssembly())
        .Where(t => t.Name.EndsWith("Controller"));

    IContainer container = builder.Build();

    DependencyResolver.SetResolver(new AutofacDependencyResolver(container));
}
```

2. **Ask for the abstraction in class constructors throughout your application.** Then in your code, wherever that dependency is required, just ask for it in the constructor. The DI Container will resolve it for you automatically!

```
public class HomeController : Controller
{
    0 references | 0 exceptions
    public HomeController(ICustomerRepository customerRepository)
    {
        _CustomerRepository = customerRepository;
    }
}

ICustomerRepository _CustomerRepository;
```

3. **Resolve the dependency when you want the Concretion instead of instantiating it.** Anytime one of your registered dependencies is in the constructor, it will be instantiated and passed in for you automatically. If you need it anywhere else, you can get it from the resolver instead of calling "new" and instantiating it yourself.

```
Stage3.Commerce commerce3 = Container.Resolve<Stage3.Commerce>();
commerce3.ProcessOrder(orderInfo);
```

Writing more testable code should be simpler. It should be fewer lines of code, and easier to read and maintain. If you find yourself at the point of diminishing returns, quit refactoring your code for a Unit Test and try another type of test. 100% code coverage is the goal and can be achieved, but it will not all be done through Unit Tests alone. Dependency Injection can be overused if you're not careful.

There's an 80-20 rule in Economics that has been brought into software development. In short, 80% of your time is spent on the last 20% of the software. Let's minimize that with good processes.

This is a great 45-minute video from Microsoft on the topic:

<https://www.youtube.com/watch?v=QtDTfn8YxXg>

## Testing

You are responsible for your programs. Their success or failure rests with you and reflects on you. The company's success or failure rests with your programs. Because of this, quality is of the utmost importance. And to release high quality applications, testing is paramount.

Code Reviews are done via Bitbucket pull requests. Be sure to schedule the appropriate people to review your code, with a mind for those that know it best and can review it best and those that can learn from it. Ideally, the Code Review will be completed after Testing but before Deployment.

Additional information can be found in this [testing document](#).

**Code Reviews.** Code Reviews help us continually improve our processes. Individually, it will help the software engineers learn about new and better programming practices and methodologies. If you figured out something new or fun, show it off!

Reviews help ensure proper techniques are being used. They will also help us improve this and other processes so we can release more software, quicker, with fewer issues.

Code Reviews will primarily be done via Bitbucket Pull Requests.

In the Code Review, look at Structure, Style, Logic, Performance, Security, Test Coverage, Design, Maintainability, and Readability.

At least one automated test is required, and the Pull request should be rejected without one.

A Code Review should not last longer than 60 to 90 minutes and cover only 400 to 600 lines of code (with the lower limit being preferable). We want to remain alert in the review more than we need to review 100% of the code changes. Commit your code in stages to try and hit these estimates.

Clearly comment your code before the review. If you don't know what's happening, then how would someone taking over your project?

Any bugs or issues detected in a Code Review need to be documented via Bitbucket. Defects will be ranked based on severity, including:

1. **High:** Change it before it releases (and mark the pull request as incomplete).
2. **Medium:** Change it in the next release but release it now as-is (and create a new task in our project management tool for this change, adding it to the next sprint).
3. **Low:** Add a task in our project management tool and change it later.

At least one other software engineer or supervisor is needed for all Code Reviews.

User Stories should be linked to the Pull request so the reviewers know what they're looking at.

Code Review defects are not a metric tracked by the company. Working software *is* tracked. We want to find defects so we can correct them before they make it to our customers. (The later a bug is found, the more expensive it is to fix as it will take longer and may damage our reputation in the process.)

Code Reviews should include constructive feedback, not criticism. Feel free to compliment good code, too! Everyone gets reviewed; be humble, keep your ego out of the review, and it should be easier.

Testing will be done in stages, from simplest to most complex: Unit Testing, Integration Testing, and Functional Testing. Not all projects will implement all 3 styles. But 100% code coverage is the goal – meaning we want ALL of our code, 100% of it, all paths and branches, to be covered by at least one of these tests, if not multiple tests. That does not mean we will complicate our code to allow 100% Unit Tests; instead, we will strive to keep our code simple and just use another test. About 90% code coverage should suffice.

Keep track of your testing results via our project management tools.

**Unit Testing.** Unit tests should be written before the code, based off the User Stories for the project. It is often easier to write these tests before the code. But don't be stuck to the process; code-first TDD is valid in many situations, if you don't lower your overall test coverage.

A Unit is a small, singular, piece of code, often a single routine. Write your code in small units and the tests will also be small. Write the Unit Tests as small as possible – so a problem *in* a routine is clearly a problem *with* the routine.

Unit tests should not rely on anything else – no database, no internet, no web services, no servers, no registry entries, no drives, no images, no files. These would all be Integration Tests. A Unit Test only wants to test your code. It is isolated or segregated from the rest of your code.

Unit Tests will run faster than any other tests, so they should be the most prolific of all your tests. But in some cases, other tests make more sense.

Our Unit tests will focus on the public elements of a class. This is referred to as black box, or public API, or surface area, testing. The details hidden within the class (private variables, functions, etc.) should be tested (or testable) by the public elements.

Here's a good web resource: <https://stackify.com/unit-testing-basics-best-practices/>

### REAL SYSTEM



**Green** = class in focus  
**Yellow** = dependencies  
**Grey** = other unrelated classes

### CLASS IN UNIT TEST



**Green** = class in focus  
**Yellow** = mocks for the unit test

**Integration Testing.** Integration testing covers multiple units and tries to find faults in how they interact with each other.

Integration tests may ensure a database can connect, or a web service responds, or a document exists. They should be in separate Test Projects from Unit Tests. They can refer to other system elements like files, databases, connectivity, etc.

Integration tests may be run against live code or live systems. (A Unit Test cannot be run against a live deployment.) They may help detect differences in environments.



**Functional Testing.** Functional testing covers multiple Units, and even multiple Integrations. A test can be run against Test or Live environments, to fully test it as a human would use it. May also be called UI Testing or User Interface Testing. Sometimes included with Integration Tests, but we will keep them in separate projects.

We use Selenium to test our web software automatically. Please see the Selenium documentation for more information on this.

Functional tests definitely include everything a live User would interact with – the UI, the database, logging in, files, etc.

Functional tests can also be used to warm up a live site. They can be run before business hours (or before the typical use time) so we find potential errors before our users do via a continuous integration program we find or something we build ourselves.

**Mocking.** A Mock is a test double. This is piece of code that is only used for testing. It may implement an interface, or inherit from an abstract class, that your Unit Test or Integration Test is checking – but it does not do any work itself. (Unlike your real implementor or inheritor, the concretion, that might talk to the database or something.) A Mock will keep track of what happens to it during a test, producing Assertions that you test for or against. Mocking in the test world is the act of making Mocks (or test doubles, or fakes, or dummies, or imitations, or proxies, etc.).

Mocks are often introduced to your real code using Dependency Injection. We pass in a Mock object for the dependency and bypass all the other dependencies that may be on the object; extending the *Collar* example from before, we could Mock *Collar* to avoid its dependencies like the *NameTag* or *Brand* or *Size* or *Age*. We don't want to test all of that every time we write a test, especially a Unit Test that aims to only test one thing at a time – because we don't want a problem in the *Age* dependency of the *Collar* to make our *Cat* test fail, it should fail its own test.

To create a Mock, you simply inherit from the interface you are testing, or inherit from the abstract or base class you are testing. When following the SOLID principles, your code layers should be loosely coupled, via interfaces and abstract classes. Your live code will provide one or more implementations of these abstractions, and your test code will likewise provide one or more implementations. This allows us to decouple the code that consumes this object from the object itself – so we are only testing one Unit, and not the whole thing, so if there's a failure we know right where to look. (Integration or Functional tests are where you can see that your database queries are working as expected.)

Your Mocks will not appear in your live code. Mocks only appear in your test projects.

There are limitations to Mocks. They are code-based, so they cannot intercept or fake a static or a private method call. But that's why we will implement multiple layers of tests.

Third-party tools like Moq can help you create small, quick Mocks. Moq allows you to implement an interface, and provide fake routines (called Stubs), without having to write a concrete implementation of an interface. See the example below; notice how the Mock tool is creating the fake implementation of *IUserDataAccessForLogons* and *IPasswordValidator*, without you having to do so. This can shrink the size of the test code, making it easier to create.

```

[TestMethod]
public void AttemptLogOn_Failed_HashedComparisonValueDoesNotMatch()
{
    var uda = new Mock<Sparq.DataAccess.IUserDataAccessForLogons>();
    var testUser = new Models.User() { Username = "test", Password = "test" };
    uda.Setup(u => u.GetUser(testUser.Username)).Returns(testUser).Verifiable();

    var pv = new Mock<AuthorizeAndAuthenticate.IPasswordValidator>();
    var e = Cryptography.eHashResult.Exception;
    var expectedHashResult =
Cryptography.eHashResult.HashedComparisonValueDoesNotMatch;
    pv.Setup(p => p.CheckHashValue(testUser.Password, testUser, ref e))
        .Callback(new PasswordCallback((string p, Models.User u, ref
Cryptography.eHashResult r) => r = expectedHashResult))
        .Returns(false)
        .Verifiable();

    AuthorizeAndAuthenticate.Authenticate.AuthenticateUserSettings
attemptingUsersInfo = null;

    attemptingUsersInfo = new
AuthorizeAndAuthenticate.Authenticate.AuthenticateUserSettings(testUser.Username,
testUser.Password);
    this.AssertFailedRunTestAttemptLogOn(attemptingUsersInfo, uda, pv,
AuthorizeAndAuthenticate.eLogOnResult.HashedComparisonValueDoesNotMatch, true, true,
expectedHashResult);
}

```

For more information on Moq, see its own documentation, or our [internal documentation](#) on it. There are other tools for mocking, too. Feel free to use the one you are most comfortable with – or none at all if you want to do it all yourself.

Team-testing sessions with the rest of the software engineers are encouraged. Just send out all the information to use the software or new feature, allowing your peer programmers enough time to test it on their own (at least 3 business days is expected). As a cohesive team of software engineers, we are expected to promptly test anything sent to us (within 3 business days, if possible, but preferably the same day), and provide feedback. Feedback should always be returned, even if no issues were found; compliments are even encouraged. Team-testing should ideally be done before the code review, so others in the code review better know the changes.

As bugs are found, add or improve your tests. Write tests (whatever test types are needed) against the old code to ensure the bug is found (and the test fails). Then correct the code until the test passes.

Working software is our primary measure of success as software engineers, and as a team of software engineers. Working means error-free; working means doing what it is supposed to do, what it was designed to do. Testing helps us achieve both goals.

## Deployment

Prepare for release by updating our project management tool (JIRA), including:

- The User Stories.
  - Changing their status to “Done”, and updating the status of any linked support tickets.
  - Include customer/stakeholder confirmation of the changes as often as possible.
- Any Definition or Design documentation.
- Successful Testing Results.

The CPO will notify any internal stakeholders, or designate someone to do so. External stakeholders will typically be updated by the internal stakeholders.

Code Reviews should be completed before the software is deployed. If changes are found during a code review, those changes must be implemented before the software is released and another Code Review must be scheduled before deployment.

Customer-impacting releases or deployments should be done when it is most convenient for our customers – not for us. Generally, this means before 7 AM Central Time or after 8 PM Central Time, but your project may be outside of even those times. (For example, the maintenance window for Meetings is midnight to 6 AM.) However, important updates (based on security, exceptions, or other criteria determined by the CPO and/or CEO) may need to be released immediately; consult your supervisor before deploying during normal business hours.

When the software has been deployed, test that the changes are working. Also test that other functionality is still working.

# Agile Software Development Manifesto

Our software development process is Agile. This will help us focus on the important things, and quickly respond to industry and customer changes.

These are the 4 values of Agile development (<http://agilemanifesto.org/>).

1. **Individuals and Interactions** over processes and tools.  
Good communication between all the parties will lead to better software. (#TEAM)
2. **Working Software** over comprehensive documentation.  
Let the documentation work with the process. Create User Stories that define how the software will be used and dictate the testing that needs to be done. Prepare comprehensive automated testing – Unit, Integration, and Functional – that explains how the software works. (#EFFICIENCY AND #QUALITY)
3. **Customer Collaboration** over contract negotiation.  
Engage the customer throughout the process. Get feedback; ask questions; give demonstrations; in short, meet the needs of the customer. (#TEAM)
4. **Responding to Change** over following a plan.  
So in the document where we define the plan, the SDLC, we also say it's more important to respond to change? Yes, that is exactly what happened. Don't feel hamstrung or tied down by a process – whether it's this document, a meeting, or anything else. Use your judgement to do the best thing for the company, for the customers, for the software. (If you ever have a question, please contact your supervisor.) Instead of developing a detailed plan at the beginning, be flexible to change as it happens. Planning is still important, of course, but agility is, too. Change feature prioritization as more information becomes available. Ship features as they are completed, instead of waiting for the whole list to be done. (#TEAM, #EFFICIENCY, AND #QUALITY)

The 4 core Agile values are supported by these 12 principles (<http://agilemanifesto.org/principles.html>):

1. Customers are more satisfied with more software releases.
2. Requirements can and will change. Welcome it.
3. Release early, and release often. Try to measure in weeks, not months, quarters, or years.  
Resilient and testable code allows for quicker releases.
4. Developers must work with the stakeholders throughout the project. As often as necessary.
5. Motivated teams deliver the best work. Ensure you have the environment and support you need for your project(s). Contact the CPO if there's anything you need.
6. Face-to-face communication is quicker and more successful.
7. Progress is measured by working software.
8. Keep a constant, repeatable, maintainable pace for sustainable development.
9. Good planning and design allow for more agility.
10. Keep it simple.

11. The software you write reflects upon you and your team. Own it.
12. Strive to continually improve this and other processes.

## Definitions

**Agile:** An adaptive software developing mindset focused on Individuals over Processes, Working Software over Documentation, Customers over Contracts, and Responsiveness over the Plan.

**ATDD:** Acceptance Test-Driven Development. Encourages collaboration between stakeholders to ensure the code is doing what it is intended to do. Acceptance tests are written in “English” by multiple stakeholders before coding begins, but can then be converted to Unit Tests easily by an engineer.

**BDD:** Behavior-Driven Development. Grown out of TDD, it is very similar. Unit Tests are specifically written to satisfy user stories, in clear language, for a desired behavior. All stakeholders are involved in creating the User Stories.

**CEO:** Chief Executive Officer.

**CPO:** Chief Programming Officer.

**Code Review:** The process of validating someone else’s code for security, performance, testability, and other concerns. We perform code reviews primarily via Bitbucket Pull Requests. Automated tests are required.

**Project Management Tool:** Currently we use JIRA. Our source control (Bitbucket, which itself uses Git) has been integrated as well.

**Software Development Lifecycle:** The complete and entire process that is followed when creating, maintaining, and deprecating software packages. Also known as the Software Development Process.

**TDD:** Test-Driven Development. Unit tests are written before the program – and the program is written to pass all the unit tests. Focuses on requirements. Software engineers are the only ones involved.

**Waterfall:** A rigid software development system whereby the project “flows” through the process. For example, from Design to Development to QC to release. Changes are not typically permitted without restarting the process.



# SPARQ MEETINGS

## USER GUIDE



This guide belongs to:

*March 21, 2026*

## Table of Contents

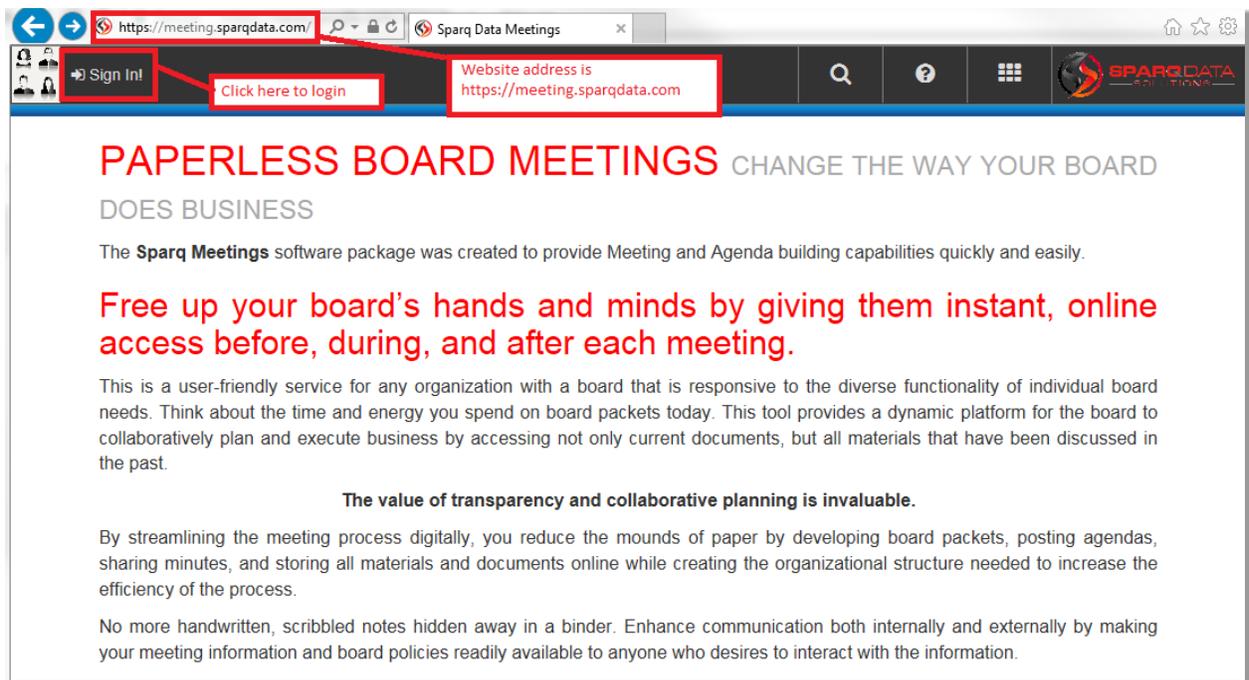
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## Introduction

In our rapidly changing world of technology, streamlining our work is the norm, especially with restricted budgets where we are expected to do more with less. Advances in technology have made it possible to substantially reduce, or even eliminate, paper copies. Thus, we are proud to provide the Sparq Meetings to those school districts ready to take the next step in online convenience.

Sparq Data Solutions has designed this service as one that will eliminate unnecessary paperwork, increase efficiency and reduce costs while enabling board members to utilize the latest in cutting edge technology.

This is the welcome page for Sparq Meetings which provides some information and a link to “Sign In”.



**PAPERLESS BOARD MEETINGS** CHANGE THE WAY YOUR BOARD DOES BUSINESS

The **Sparq Meetings** software package was created to provide Meeting and Agenda building capabilities quickly and easily.

**Free up your board's hands and minds by giving them instant, online access before, during, and after each meeting.**

This is a user-friendly service for any organization with a board that is responsive to the diverse functionality of individual board needs. Think about the time and energy you spend on board packets today. This tool provides a dynamic platform for the board to collaboratively plan and execute business by accessing not only current documents, but all materials that have been discussed in the past.

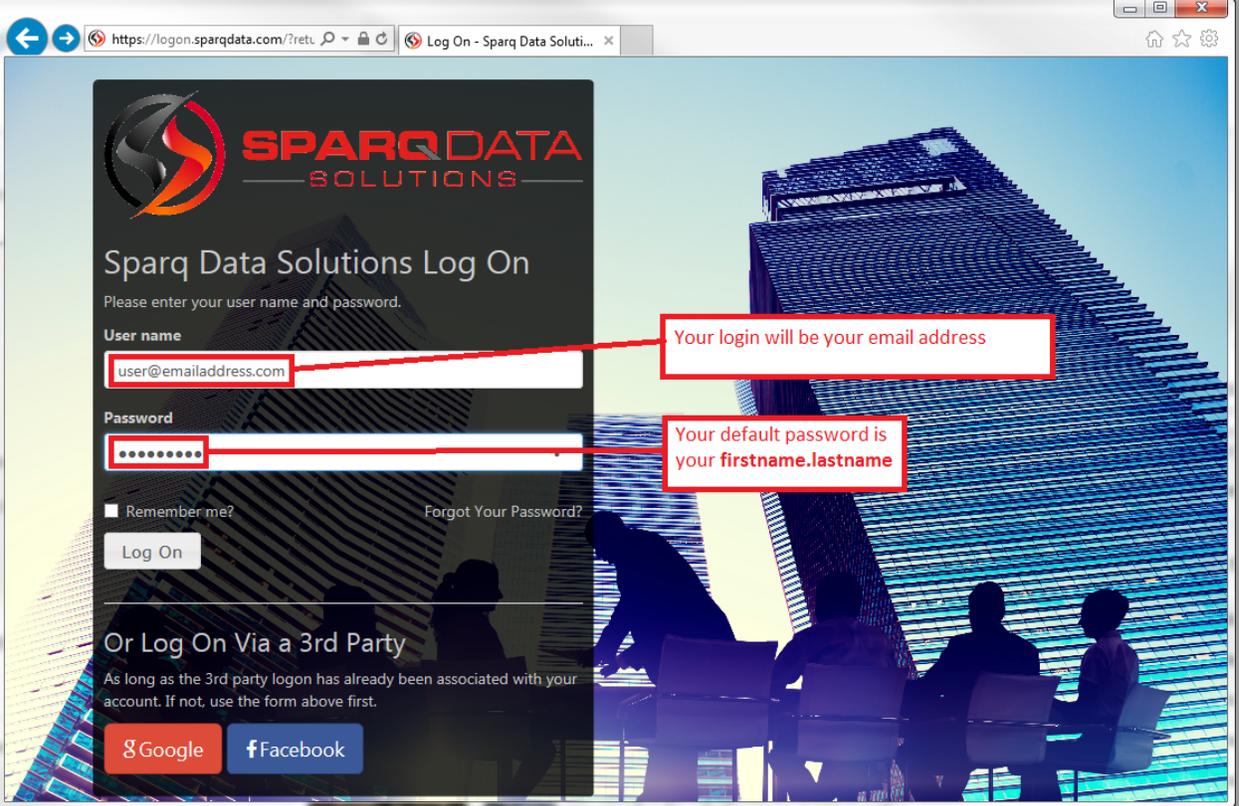
**The value of transparency and collaborative planning is invaluable.**

By streamlining the meeting process digitally, you reduce the mounds of paper by developing board packets, posting agendas, sharing minutes, and storing all materials and documents online while creating the organizational structure needed to increase the efficiency of the process.

No more handwritten, scribbled notes hidden away in a binder. Enhance communication both internally and externally by making your meeting information and board policies readily available to anyone who desires to interact with the information.

## Logging In

The web address is <https://meeting.sparqdata.com>. You will log in with your email address and the default password is your first name dot last name, all lower case. For example John Smith's password is: john.smith



The screenshot shows the Sparq Data Solutions Log On page. The page features the Sparq Data Solutions logo at the top left. Below the logo, the text "Sparq Data Solutions Log On" is displayed, followed by the instruction "Please enter your user name and password." The form includes a "User name" field with the placeholder "user@emailaddress.com" and a "Password" field with a masked password ".....". A "Remember me?" checkbox is present, along with a "Log On" button and a "Forgot Your Password?" link. Below the main form, there is a section for "Or Log On Via a 3rd Party" with buttons for Google and Facebook. Two red callout boxes with white text and red borders point to the form fields: one pointing to the User name field with the text "Your login will be your email address" and another pointing to the Password field with the text "Your default password is your firstname.lastname".

**TIP:** You may want to add this page to your Favorites list or create a shortcut so you can access it faster in the future.

Please note: you can store your login information by checking "Remember me?"

**Important:** Saving login information is not advisable when using a public computer. If you save your login information when using a public computer, others may be able to open Sparq Meetings and view confidential attachments.

## Home Page

After you log in, you will see the Home page with a menu across the top which you can use to navigate. Clicking each menu item causes it to expand showing further options.

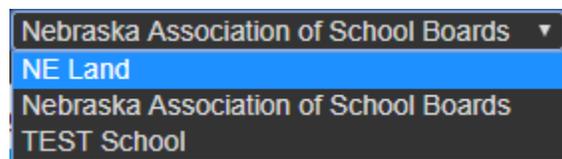
On the left of the Home page, there is a *Meetings & Agendas* section that can be used to join a current meeting or view a past meeting. The calendar in the center is used to display upcoming meetings and events.

On the top left of the page is a link with your name. Click your name to see a menu including *Manage Your Information*, where you can go to update your user account information. On that page you can change username, email, password, and other information related to your account.

On the right of the page are links created by the staff giving access to any other websites from the Home page.

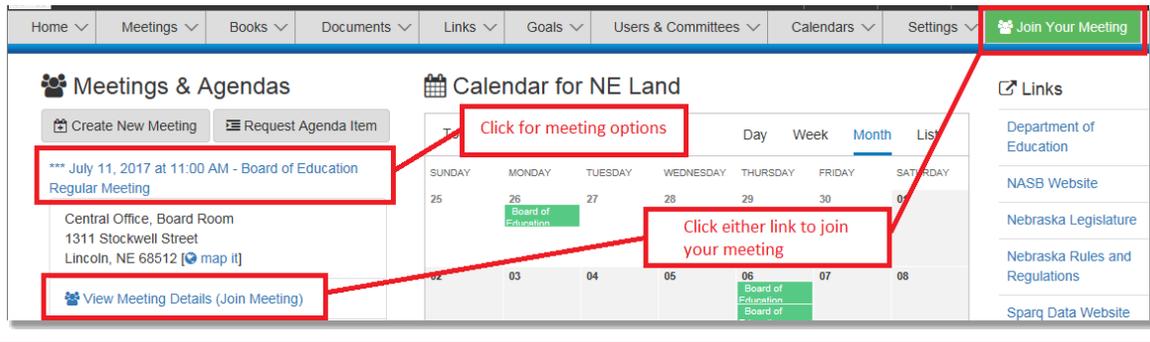
The screenshot displays the Home Page interface. At the top left, the user profile for John Smith is shown next to the organization name NE Land. A red box highlights the user name with the text "Access your account". A red arrow points from this box to the "Menu" dropdown in the top navigation bar. The navigation bar includes items like Home, Meetings, Books, Documents, Links, Goals, Users & Committees, Calendars, and Settings. Below the navigation bar, the page is divided into three main sections: "Meetings & Agendas" on the left, a "Calendar for NE Land" in the center, and "Links" on the right. The "Meetings & Agendas" section lists several "Board of Education Regular Meeting" events. The calendar shows the month of July 2017 with various events marked, such as "Board of Education" on July 6th and "NAEP Workshops" on July 12th and 13th. A red box highlights the calendar with the text "Calendar displays upcoming meetings and other events". The "Links" section on the right lists external resources like "Department of Education", "NASB Website", "Nebraska Legislature", "Nebraska Rules and Regulations", and "Sparg Data Website".

If your login has access to more than one organization, you will have the option to select which organization you are viewing using the selection list in the top left of the page, next to your name.



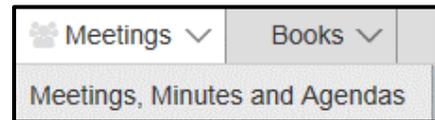
## Join Your Meeting

Joining an upcoming or in-progress meeting is easy and you have multiple ways to join. The simplest is clicking the *Join Your Meeting* button which is the green button on the top menu. This button is available shortly before the scheduled start time and remains while the meeting is in progress. You can also join a meeting from the Home page by clicking the meeting on the left to expand the Meeting menu showing several options: one of which is *View Meeting Details (Join Meeting)*.



## Meetings Page

You can view highlights of upcoming and recent meetings from the Home page, but you can also get a more detailed view from the Meetings page. Click *Meetings* to see a menu and then click *Meetings, Minutes and Agendas* to reach the Meetings page. The Meetings page will list out all your meetings including the meetings that are still being developed.



Each meeting displays information about time and location while also providing a link to join the meeting. Click the link in the first column to display a menu of options for that meeting including the ability to join the meeting if it is in progress.

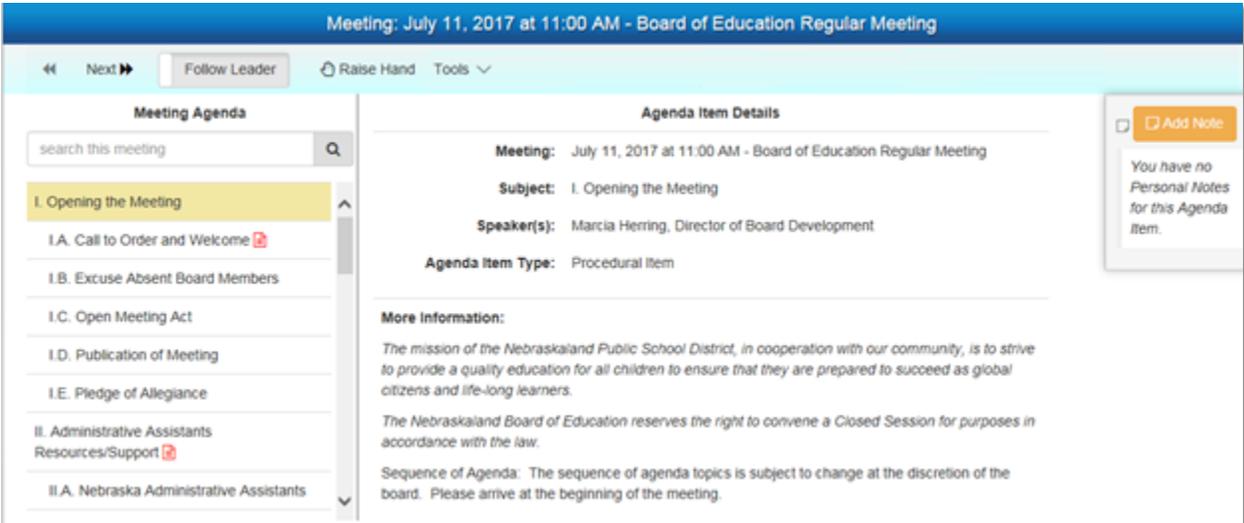
Meetings	Status	Reports
July 13, 2017 at 2:30 PM - Meeting Title for Testing Suite #300 1301 Stockwell St Lincoln, NE 68502 [map it]	Modified 7/9/2017 at 9:49 PM Meeting Status: <b>In Review</b> Meeting Type: Special	Public Notice Agenda Report
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January 10, 2017 at 7:30 PM - Test with Lots of Agenda Items John Bonaluto Conference Room 1311 Stockwell Street Lincoln, NE 68502 [map it]	Modified 7/6/2017 at 9:47 AM Meeting Status: <b>Stopped</b> Meeting Type: Regular	Public Notice Agenda Report
November 14, 2016 at 8:30 PM - seven John Bonaluto Conference Room 1311 Stockwell Street Lincoln, NE 68502 [map it]	Modified 4/11/2017 at 2:10 PM Meeting Status: <b>Completed</b> Meeting Type: Regular	Public Notice Agenda Report Minutes Report

## Attending a Meeting

Once you join a meeting you will see the Meeting page. From here, you may view the meeting agenda, open attachments, or write notes.

Notice the meeting agenda on the left side of your page. You may navigate the agenda by using the scroll bars located on the right side of the agenda or using the *Next* arrow or back arrow buttons above the agenda. You may also view a specific agenda item by clicking on it. (On smaller screens, the agenda will be hidden by default but is available by clicking the  button.)

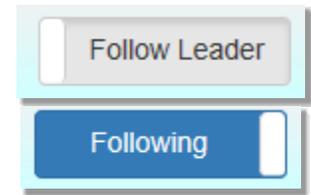
In the center of the page you will see the details about the current agenda item including the name, the rationale for the item, if any, and other information about the agenda item. Recommended motions for action items will also appear in this area. Once an Action has been taken, it will appear in this area.



The screenshot shows a meeting interface for "Meeting: July 11, 2017 at 11:00 AM - Board of Education Regular Meeting". On the left, there is a "Meeting Agenda" sidebar with a search bar and a list of items. The first item, "I. Opening the Meeting", is highlighted. The main area displays "Agenda Item Details" for this item, including the meeting name, subject, speaker (Marcia Herring), and item type (Procedural Item). Below this, there is a "More Information" section with text about the district's mission and the board's right to convene a closed session. A "Sequence of Agenda" note is also present. On the right, there is an "Add Note" button and a message stating "You have no Personal Notes for this Agenda Item."

## Follow the Leader

While you may choose to navigate and view agenda items at your own pace, it may also be useful to follow along automatically as a meeting leader guides the meeting. You may select *Follow Leader* which gives the meeting leader navigational control of your meeting page. Once you click that button, the color changes and the text updates to *Following* so you know automatic navigation is active.



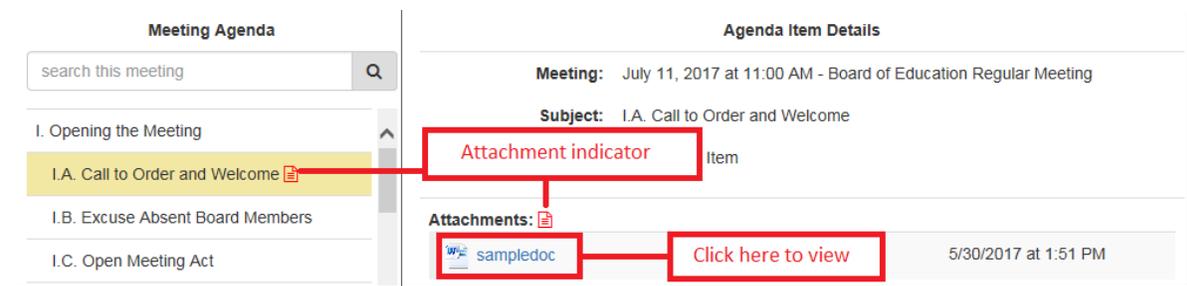
When the leader advances the agenda, your page automatically changes within a few seconds. You may navigate the meeting on your own by clicking the *Following* button, or by clicking on an attachment or other agenda item. You can always switch back to *Following* at any time.

While following, the leader determines which agenda item is selected and can also open attachments. You will be viewing the meeting as a presentation until you choose to take some other action on your own.

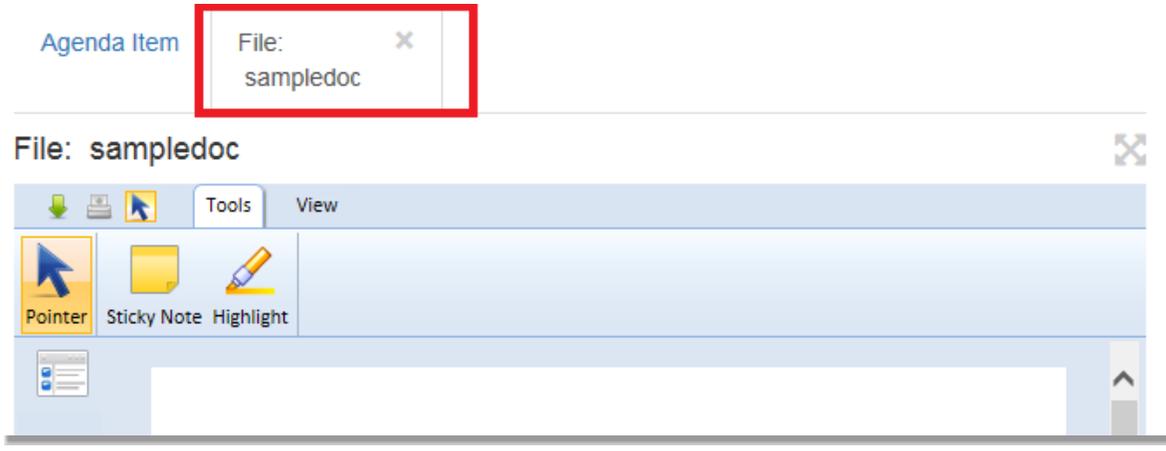
**Note:** If you click on another agenda item or open an attachment while Following, the action will automatically turn off Following and you must turn that feature back on to give control back to the leader.

## Attachments

Each agenda item may have attachments. Items with an attachment will have a document icon next to it in the Meeting Agenda. If that agenda item is active, you will also see the attachment indicator along with a link to view the attachment.



When you, or the leader you are following, clicks the attachment, the document appears. You can switch between viewing the agenda item and the document using the tabs shown here.

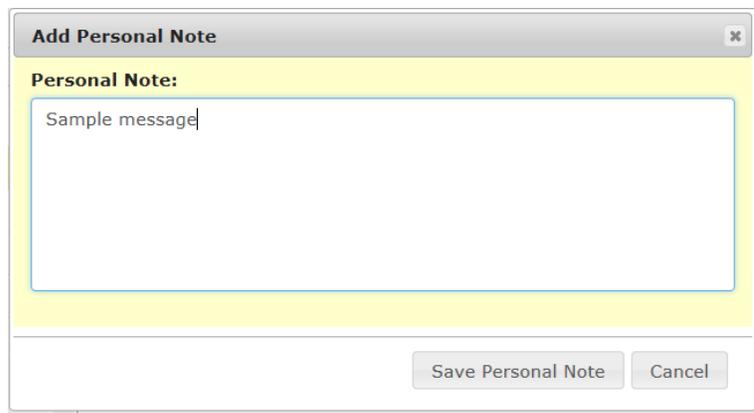


### Notes

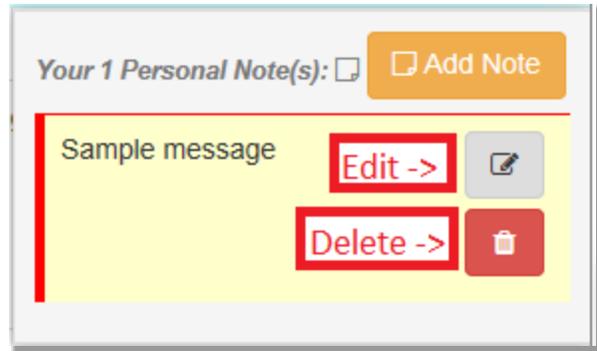
You may add your own personal notes to any agenda item. To add one, click *Add Note* which you will find to the right of the agenda item details. Notes may instead appear with the other details on smaller screens.



When adding a note, you will enter your text and click *Save Personal Note*, or click *Cancel* to discard your changes.

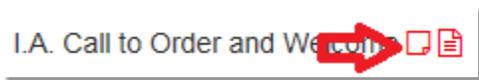


After you save your note, you can see it on the right of the page along with buttons to edit or delete the note.



The Notes feature is designed to enable individual users to attach private reminders and comments to an agenda item. Only appropriate information should be added as a note; avoid entry of anything that would be questionable or embarrassing to the user or to the District.

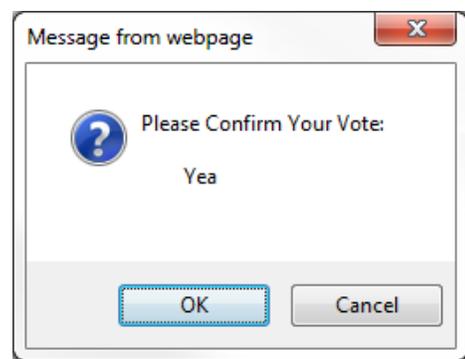
Agenda items with notes on them will have an indicator icon so you can see which items have notes.



### Voting

During the meeting, the leader may initiate an electronic vote which will automatically open the voting page for all voting members.

Once you make your selection, you will be asked to confirm your vote. Click OK to confirm.



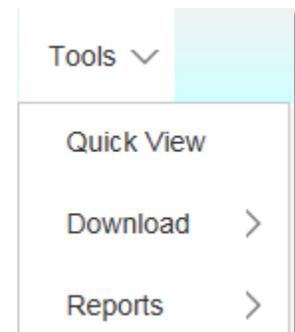
### Tools

While viewing a meeting, several functions are available from a Tools menu. Click that item to see a list of options.

Quick View is a printable view of the agenda which can include additional information such as motions and attachments.

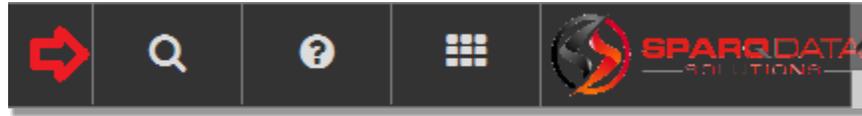
Download is a menu providing options to create a PDF file of the agenda with or without attachments.

Reports is another menu with options for various agenda and minutes reports which were designed for your organization.



## Search

If you need to locate information from previous board meetings, the search is always accessible from the magnifying glass button on the top right.



### Search

Searches will cover all meetings, including those that have been archived. You can search using keywords or phrases. After pressing Enter or clicking the search button you will see a list of matching items. Click on the item to go to the meeting and view the item.

### Search Results

- Agenda Item Action: Mar 19 2016 9:45AM -- NASB Board of Directors Meeting -- Closed Session  
Related to Personnel and Budget  
*Motion:* Approval of the presented Resolution to the **Board** of Directors
- Agenda Item Action: Jan 24 2015 2:00PM -- NASB Board of Directors Meeting -- Approval of Agenda  
*Motion:* Motion to approve the **Board** of Director's Meeting Agenda

If you would like to refine your search to a specific date range or to search in attachments or notes, use the [Advanced Search Options](#) to choose which items to include in your search. Make your selections then click 'Update Search Results' to perform the search with your new criteria.

### Advanced Search Options

All | None

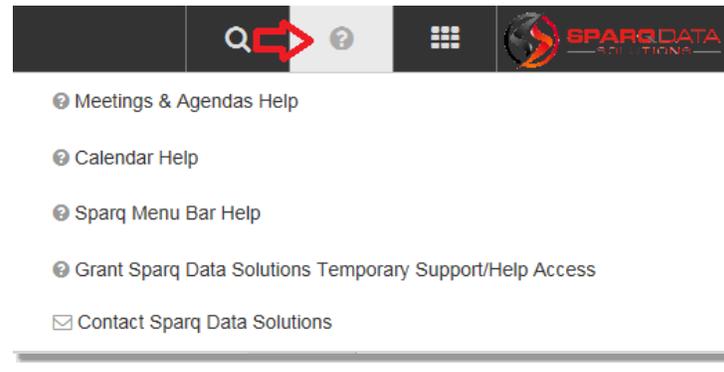
- Agenda Item
- Agenda Item Action
- Calendar Event
- File / Attachment / Document
- Meeting
- Personal Document Note
- Personal User Note
- Workflow User Response

From:

To:

## Help

Sparq Meetings has many more features than are listed in this quick start guide. To learn more about the program, try using the online help by clicking the Question mark button in the top right of the page. You will find information about meetings and agendas, the calendar, navigation, and other tools.



## Logging Out

When finished using Sparq Meetings it is important to log out. To log out, click your name at the top left corner of the page. Click the option that says your name and 'Sign Out'.



## Let Us Know

Sparq Meetings was designed for and with district users (board members, superintendents, and administrative personnel). Because our goal is to provide ongoing improvement of all our services, we value user input.

If you have questions, comments, complaints, compliments or suggestions for improvements, please click the contact link on the bottom of every page in Sparq Meetings.

[Questions? Comments? Contact Sparq Data Solutions!](#)

# SPARQ MEETINGS

## USER GUIDE



This guide belongs to:

*March 21, 2026*

## Table of Contents

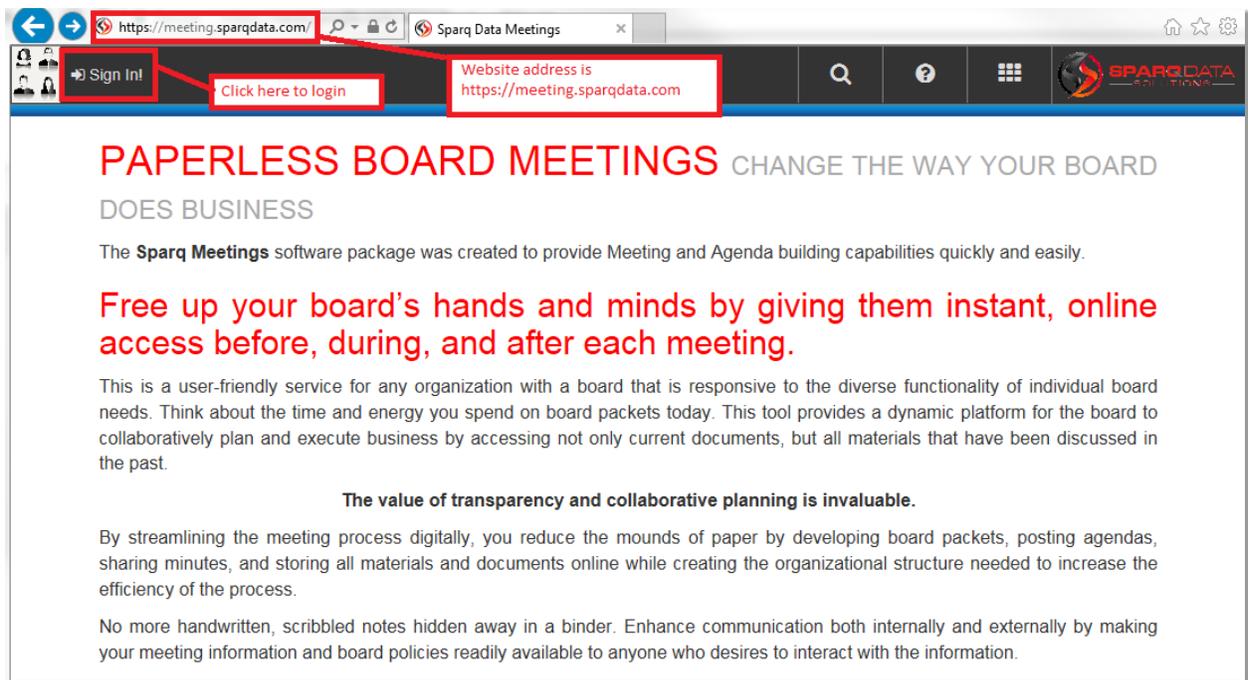
<u>Introduction</u>	<b>Error! Bookmark not defined.</b>
<u>    Logging In</u> .....	<b>Error! Bookmark not defined.</b>
<u>    Home Page</u> .....	<b>Error! Bookmark not defined.</b>
<u>Join Your Meeting</u>	<b>Error! Bookmark not defined.</b>
<u>Meetings Page</u>	<b>Error! Bookmark not defined.</b>
<u>Attending a Meeting</u>	<b>Error! Bookmark not defined.</b>
<u>    Follow the Leader</u> .....	<b>Error! Bookmark not defined.</b>
<u>    Attachments</u> .....	<b>Error! Bookmark not defined.</b>
<u>    Notes</u> .....	<b>Error! Bookmark not defined.</b>
<u>    Voting</u> .....	<b>Error! Bookmark not defined.</b>
<u>    Tools</u> .....	<b>Error! Bookmark not defined.</b>
<u>Search</u>	<b>Error! Bookmark not defined.</b>
<u>Help</u>	<b>Error! Bookmark not defined.</b>
<u>Logging Out</u>	<b>Error! Bookmark not defined.</b>
<u>Let Us Know</u>	<b>Error! Bookmark not defined.</b>

## Introduction

In our rapidly changing world of technology, streamlining our work is the norm, especially with restricted budgets where we are expected to do more with less. Advances in technology have made it possible to substantially reduce, or even eliminate, paper copies. Thus, we are proud to provide the Sparq Meetings to those school districts ready to take the next step in online convenience.

Sparq Data Solutions has designed this service as one that will eliminate unnecessary paperwork, increase efficiency and reduce costs while enabling board members to utilize the latest in cutting edge technology.

This is the welcome page for Sparq Meetings which provides some information and a link to “Sign In”.



**PAPERLESS BOARD MEETINGS** CHANGE THE WAY YOUR BOARD DOES BUSINESS

The **Sparq Meetings** software package was created to provide Meeting and Agenda building capabilities quickly and easily.

**Free up your board's hands and minds by giving them instant, online access before, during, and after each meeting.**

This is a user-friendly service for any organization with a board that is responsive to the diverse functionality of individual board needs. Think about the time and energy you spend on board packets today. This tool provides a dynamic platform for the board to collaboratively plan and execute business by accessing not only current documents, but all materials that have been discussed in the past.

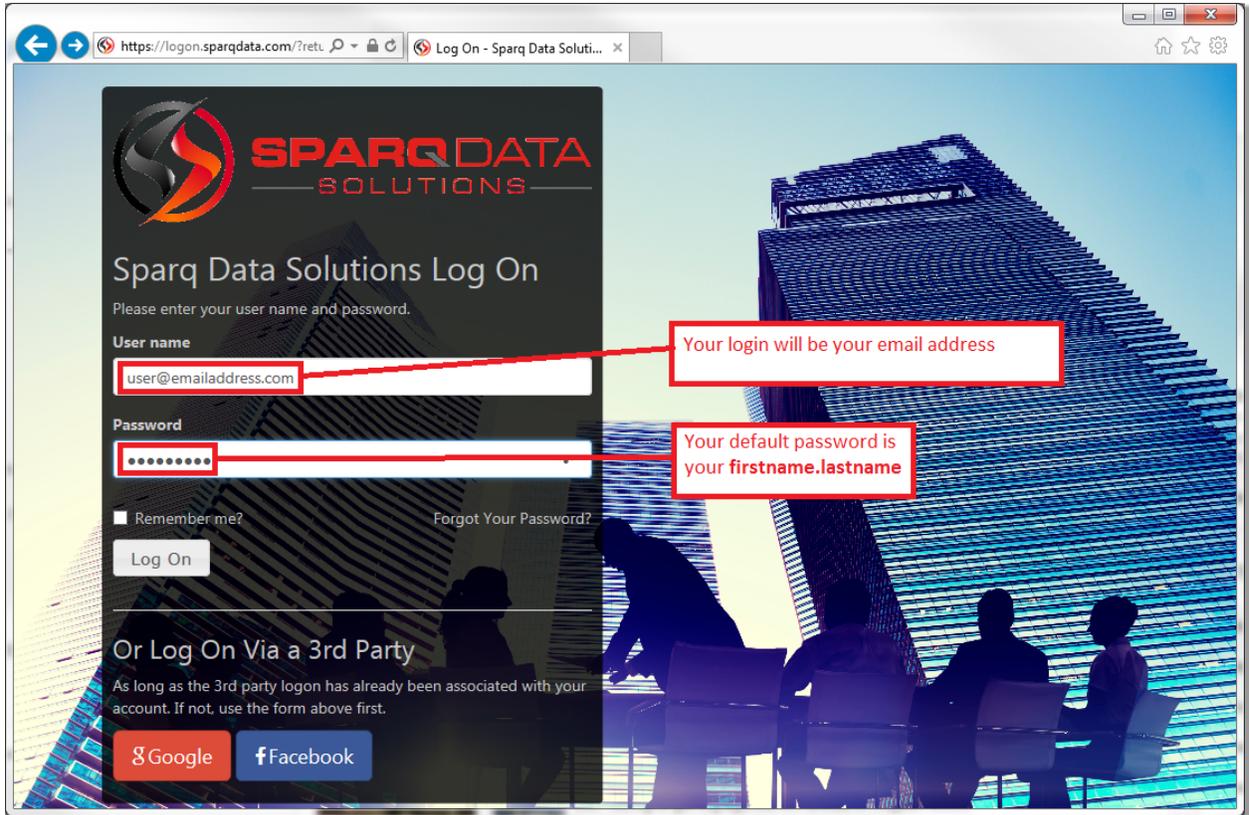
**The value of transparency and collaborative planning is invaluable.**

By streamlining the meeting process digitally, you reduce the mounds of paper by developing board packets, posting agendas, sharing minutes, and storing all materials and documents online while creating the organizational structure needed to increase the efficiency of the process.

No more handwritten, scribbled notes hidden away in a binder. Enhance communication both internally and externally by making your meeting information and board policies readily available to anyone who desires to interact with the information.

## Logging In

The web address is <https://meeting.sparqdata.com>. You will log in with your email address and the default password is your first name dot last name, all lower case. For example John Smith's password is: john.smith



The screenshot shows the Sparq Data Solutions Log On page in a web browser. The page features the Sparq Data Solutions logo at the top left. Below the logo, the text reads "Sparq Data Solutions Log On" and "Please enter your user name and password." There are two input fields: "User name" and "Password". The "User name" field contains the text "user@emailaddress.com" and is highlighted with a red box and a callout that says "Your login will be your email address". The "Password" field contains a series of dots and is highlighted with a red box and a callout that says "Your default password is your firstname.lastname". Below the input fields, there is a checkbox for "Remember me?" and a link for "Forgot Your Password?". A "Log On" button is located below these options. At the bottom of the page, there is a section titled "Or Log On Via a 3rd Party" with buttons for "Google" and "Facebook". The background of the page shows a modern building with a glass facade and silhouettes of people sitting at a table.

**TIP:** You may want to add this page to your Favorites list or create a shortcut so you can access it faster in the future.

Please note: you can store your login information by checking "Remember me?".

**Important:** Saving login information is not advisable when using a public computer. If you save your login information when using a public computer, others may be able to open Sparq Meetings and view confidential attachments.

## Home Page

After you log in, you will see the Home page with a menu across the top which you can use to navigate. Clicking each menu item causes it to expand showing further options.

On the left of the Home page, there is a *Meetings & Agendas* section that can be used to join a current meeting or view a past meeting. The calendar in the center is used to display upcoming meetings and events.

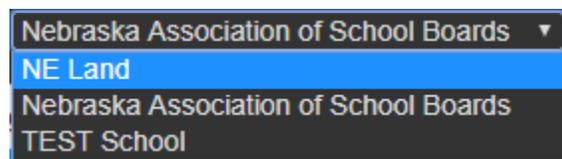
On the top left of the page is a link with your name. Click your name to see a menu including *Manage Your Information*, where you can go to update your user account information. On that page you can change username, email, password, and other information related to your account.

On the right of the page are links created by the staff giving access to any other websites from the Home page.

The screenshot displays the Home Page interface. At the top left, the user profile shows "John Smith" with a dropdown arrow and "NE Land" next to it. A "Menu" label points to the top navigation bar which includes: Home, Meetings, Books, Documents, Links, Goals, Users & Committees, Calendars, and Settings. Below the navigation bar, the page is divided into three main sections:

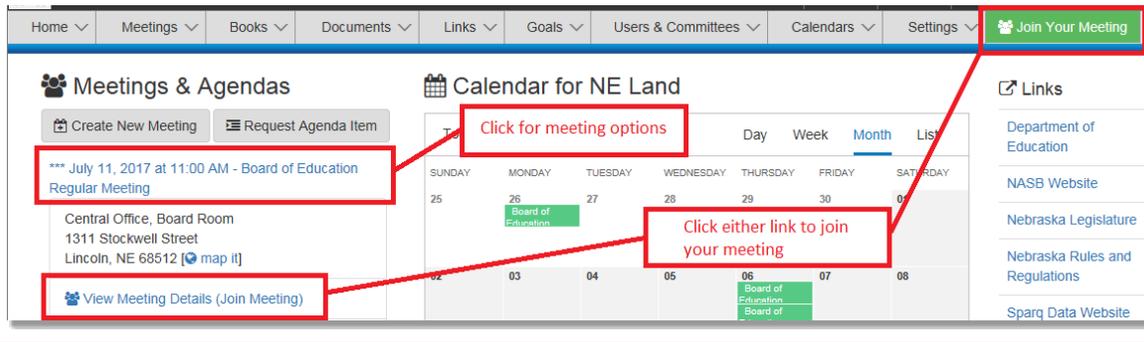
- Meetings & Agendas:** Contains a "Create New Meeting" and "Request Agenda Item" button, followed by a list of meeting entries for July 6, 2017, and August 19, 2016, all titled "Board of Education Regular Meeting".
- Calendar for NE Land:** A monthly calendar for July 2017. A red box highlights the calendar with the text "Calendar displays upcoming meetings and other events". The calendar shows events for various dates, including "Board of Education" on July 6, 12, 13, 18, 19, 20, and "NAEP Workshop" on July 12, 13, 18, 19, 20. "Administrator Days - Kearney" are shown on July 26-27. Filter buttons at the bottom include "Meetings", "Board", "Staff", and "From Nebraska Association of School Boards".
- Links:** A list of external links including "Department of Education", "NASB Website", "Nebraska Legislature", "Nebraska Rules and Regulations", and "Sparg Data Website".

If your login has access to more than one organization, you will have the option to select which organization you are viewing using the selection list in the top left of the page, next to your name.



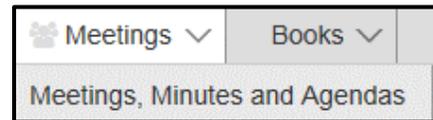
## Join Your Meeting

Joining an upcoming or in-progress meeting is easy and you have multiple ways to join. The simplest is clicking the *Join Your Meeting* button which is the green button on the top menu. This button is available shortly before the scheduled start time and remains while the meeting is in progress. You can also join a meeting from the Home page by clicking the meeting on the left to expand the Meeting menu showing several options: one of which is *View Meeting Details (Join Meeting)*.



## Meetings Page

You can view highlights of upcoming and recent meetings from the Home page, but you can also get a more detailed view from the Meetings page. Click *Meetings* to see a menu and then click *Meetings, Minutes and Agendas* to reach the Meetings page. The Meetings page will list out all your meetings including the meetings that are still being developed.



Each meeting displays information about time and location while also providing a link to join the meeting. Click the link in the first column to display a menu of options for that meeting including the ability to join the meeting if it is in progress.

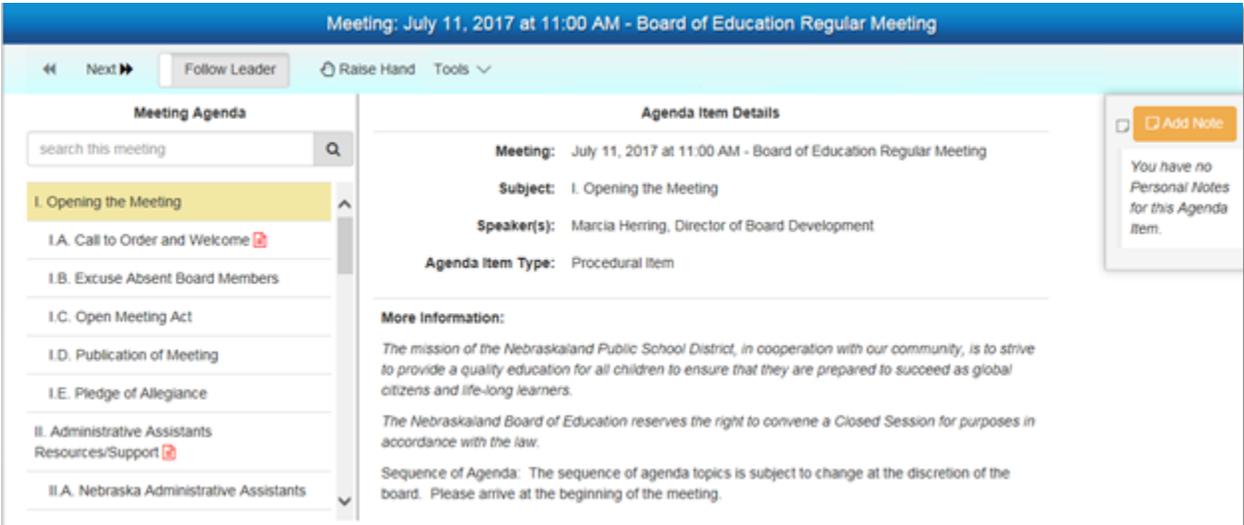
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## Attending a Meeting

Once you join a meeting you will see the Meeting page. From here, you may view the meeting agenda, open attachments, or write notes.

Notice the meeting agenda on the left side of your page. You may navigate the agenda by using the scroll bars located on the right side of the agenda or using the *Next* arrow or back arrow buttons above the agenda. You may also view a specific agenda item by clicking on it. (On smaller screens, the agenda will be hidden by default but is available by clicking the  button.)

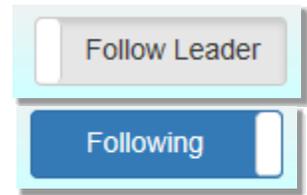
In the center of the page you will see the details about the current agenda item including the name, the rationale for the item, if any, and other information about the agenda item. Recommended motions for action items will also appear in this area. Once an Action has been taken, it will appear in this area.



The screenshot shows a meeting interface for a "Board of Education Regular Meeting" on July 11, 2017. On the left, a "Meeting Agenda" sidebar lists items from "I. Opening the Meeting" to "II.A. Nebraska Administrative Assistants". The main area displays "Agenda Item Details" for "I. Opening the Meeting", including the speaker "Marcia Herring, Director of Board Development" and the item type "Procedural Item". A "More Information" section contains the district's mission statement and a note about the board's right to convene a closed session. A "Follow Leader" button and a "Raise Hand" icon are visible at the top of the meeting area.

## Follow the Leader

While you may choose to navigate and view agenda items at your own pace, it may also be useful to follow along automatically as a meeting leader guides the meeting. You may select *Follow Leader* which gives the meeting leader navigational control of your meeting page. Once you click that button, the color changes and the text updates to *Following* so you know automatic navigation is active.



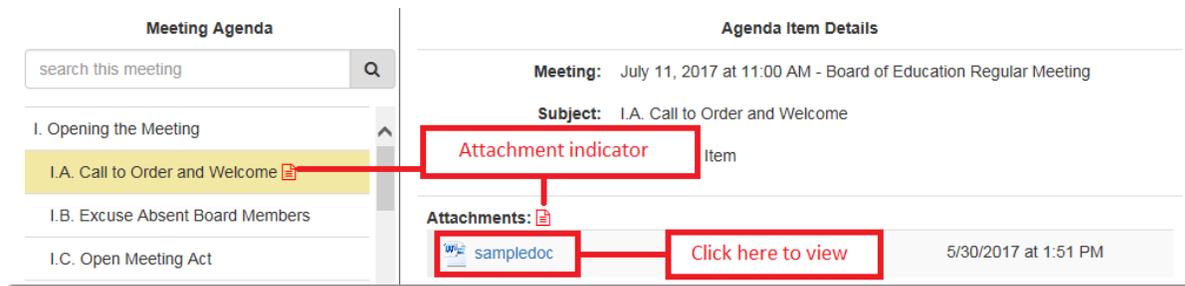
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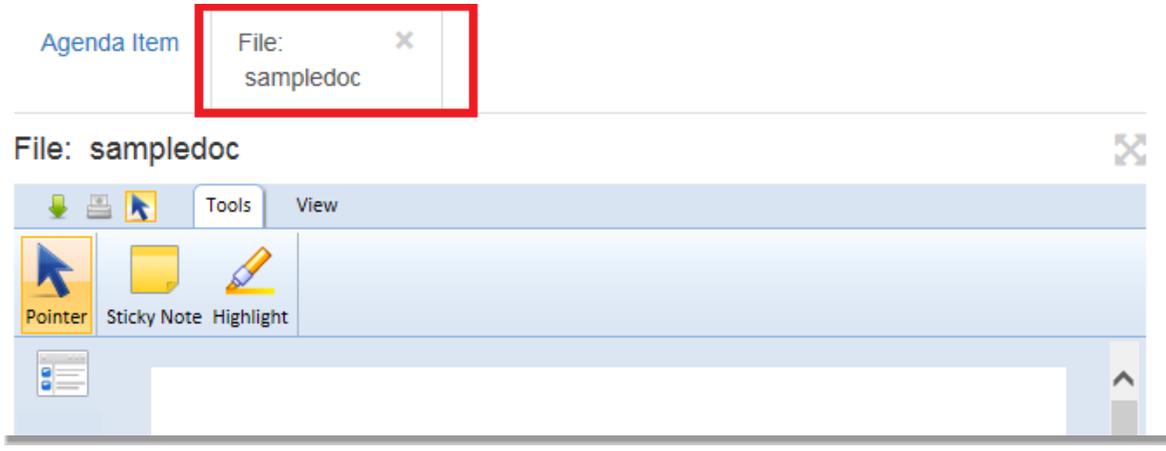
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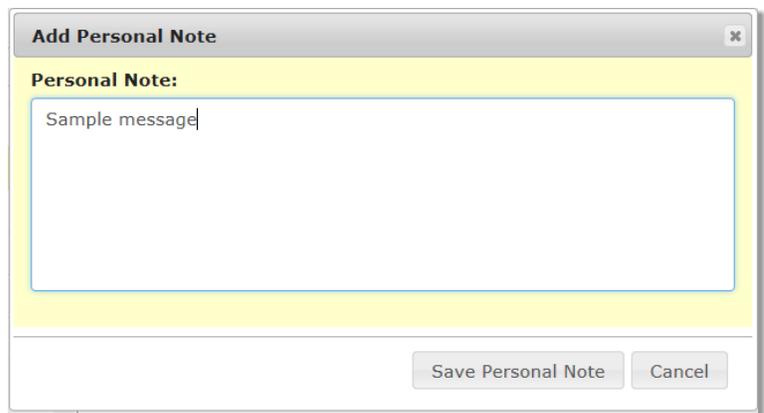


### Notes

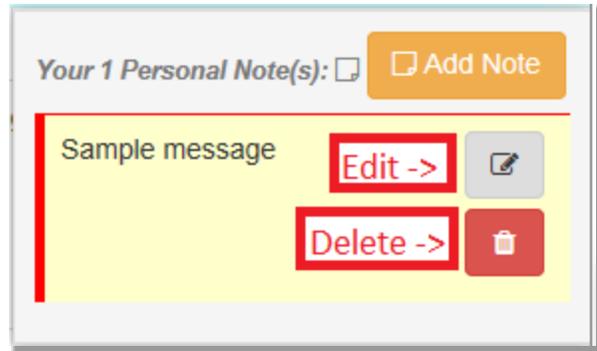
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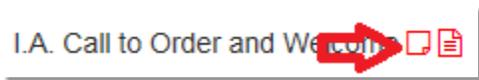


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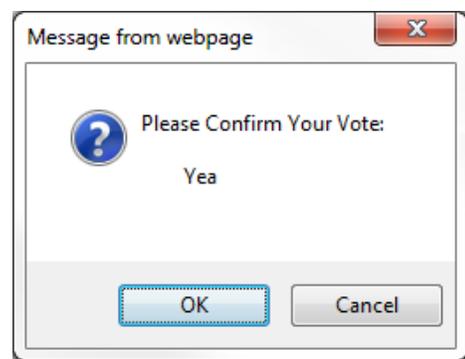
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### Voting

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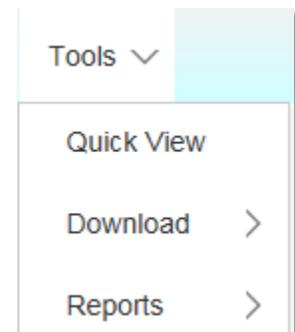
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While viewing a meeting, several functions are available from a *Tools* menu. Click that item to see a list of options.

*Quick View* is a printable view of the agenda which can include additional information such as motions and attachments.

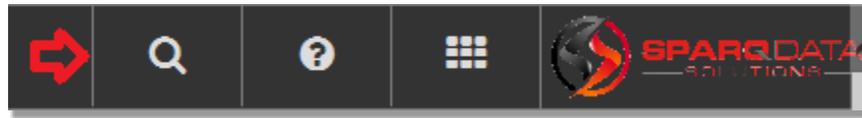
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*Reports* is another menu with options for various agenda and minutes reports which were designed for your organization.



## Search

If you need to locate information from previous board meetings, the search is always accessible from the magnifying glass button on the top right.



### Search

Searches will cover all meetings, including those that have been archived. You can search using keywords or phrases. After pressing Enter or clicking the search button you will see a list of matching items. Click on the item to go to the meeting and view the item.

### Search Results

- Agenda Item Action: Mar 19 2016 9:45AM -- NASB Board of Directors Meeting -- Closed Session  
Related to Personnel and Budget  
*Motion:* Approval of the presented Resolution to the **Board** of Directors
- Agenda Item Action: Jan 24 2015 2:00PM -- NASB Board of Directors Meeting -- Approval of Agenda  
*Motion:* Motion to approve the **Board** of Director's Meeting Agenda

If you would like to refine your search to a specific date range or to search in attachments or notes, use the [Advanced Search Options](#) to choose which items to include in your search. Make your selections then click 'Update Search Results' to perform the search with your new criteria.

### Advanced Search Options

All | None

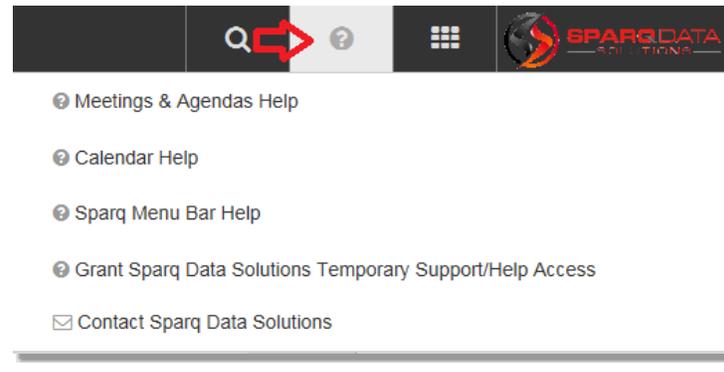
- Agenda Item
- Agenda Item Action
- Calendar Event
- File / Attachment / Document
- Meeting
- Personal Document Note
- Personal User Note
- Workflow User Response

From:

To:

## Help

Sparq Meetings has many more features than are listed in this quick start guide. To learn more about the program, try using the online help by clicking the Question mark button in the top right of the page. You will find information about meetings and agendas, the calendar, navigation, and other tools.



## Logging Out

When finished using Sparq Meetings it is important to log out. To log out, click your name at the top left corner of the page. Click the option that says your name and 'Sign Out'.



## Let Us Know

Sparq Meetings was designed for and with district users (board members, superintendents, and administrative personnel). Because our goal is to provide ongoing improvement of all our services, we value user input.

If you have questions, comments, complaints, compliments or suggestions for improvements, please click the contact link on the bottom of every page in Sparq Meetings.

[Questions? Comments? Contact Sparq Data Solutions!](#)

## [Policies]



*No Policies are Attached to this Agenda Item*

Select [Policies] for this Agenda Item

## [Links]



**Link Title / Description / URL / Permissions**



*No links have been added to this Agenda Item.*

- G. Action Items
- H. Discussion Items
- I. Adjourn

“During the course of the meeting, if any item on the agenda is required or permitted by law to be deliberated in closed session for purposes of confidentiality, the Board may convene into closed session for such purpose in accordance with the Open Meetings Act Government Code Chapter 551, with citation of the specific statutory authority applicable to each of such items.”