

## Audio Interface LLP Data Base :

<b>RME HDSPe AIO Pro : Driver 4.35 : LLP Rating – 10.00</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	136	000	100	0.839 / 1.633	2.494**
064	153	200	220	1.565 / 2.358	3.946**
128	160	300	340	3.016 / 3.810	6.848**
256	168	540	540	5.918 / 6.712	12.653**
512		720	720	11.723/12.517	24.263**
<b>Total</b>	<b>617</b>	<b>1760</b>	<b>1920</b>		<b>50.204/47.710</b>
%	1.00	1.00	1.00		1.00

Optimize Multiclient Mixing – Off

\*\* RTL Calculated Via Utility

<b>RME HDSPe AES/ADI8QS : Driver 3.24 : LLP Rating – 9.44</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	130	000	100	.794/1.519*	2.947**
064	149	200	220	1.519/2.245*	4.399**
128	155	300	340	2.971/3.696*	7.301**
256	158	540	540	5.873/6.599*	13.100**
512		720	720	11.678/12.404*	24.710**
<b>Total</b>	<b>593</b>	<b>1760</b>	<b>1920</b>		<b>52.457</b>
%	.96	1.0	1.0		.96

Optimize Multiclient Mixing – Off

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>Lynx AES 16e / Aurora 16 : Driver 2.19e : LLP Rating – 9.21</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	104	000	000	0.771/0.794*	2.132**
064	132	160	200	1.497/1.519*	3.582**
128	144	320	360	2.948/2.971*	6.486**
256	151	480	500	5.850/5.873*	12.289**
512		640	660	11.655/11.678*	23.899**
<b>Total</b>	<b>531</b>	<b>1600</b>	<b>1700</b>		<b>48.388</b>
%	.86	.90	.89		1.04

Double Playback Buffering – Off

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>RME Fireface UFX+ TB : Driver 1.12 : LLP Rating – 8.83</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	113	000	000	1.247/1.315	2.572**
064	141	180	200	1.973/2.041	4.024**
128	153	260	280	3.424/3.492	6.926**
256	159	460	480	6.327/6.395	12.725**
512		680	680	12.132/12.200	24.341**
<b>Total</b>	<b>566</b>	<b>1580</b>	<b>1640</b>		<b>50.588</b>
%	.91	.89	.85		.99

\*\* RTL Calculated Via Utility  
Optimize Multiclient Mixing – Off

<b>Antelope Discrete 8 TB : Driver 1.03.86 : LLP Rating – 8.78</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	113	000	000	0.771/0.839*	2.540**
064	138	180	200	1.497/1.565*	3.991**
128	147	260	280	2.948/3.016*	6.893**
256	154	460	480	5.850/5.918*	12.698**
512		680	680	11.665/11.723*	24.308**
<b>Total</b>	<b>552</b>	<b>1580</b>	<b>1640</b>		<b>50.430</b>
%	.89	.89	.85		.99

\* I/O not reporting AD/DA  
\*\* RTL Calculated Via Utility

<b>Lynx Aurora LT-TB : Driver 2.23i : LLP Rating 8.77</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	101	000	000	1.134/1.088	2.222**
064	136	160	180	1.859/1.814	3.673**
128	147	240	260	3.311/3.265	6.576**
256	155	440	460	6.213/6.168	12.381**
512		680	680	12.018/11.973	23.991**
<b>Total</b>	<b>539</b>	<b>1520</b>	<b>1580</b>		<b>48.843</b>
%	.87	.86	.82		1.02

\*\* RTL Calculated Via Utility

<b>RME Fireface UFX+ USB3 : Driver 0.9590 : LLP Rating - 8.48</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	120	000	000	1.111/2.063	3.187**
064	141	180	200	1.837/2.789	4.646**
128	153	280	300	3.288/4.24	7.548**
256	157	480	500	6.19/7.143	13.353**
512		680	680	11.995/12.948	24.956**
<b>Total</b>	<b>571</b>	<b>1620</b>	<b>1480</b>		<b>53.69</b>
%	.92	.92	.87		.93

\*\* RTL Calculated Via Utility

<b>RME HDSPe AIO : Driver 3.024 : LLP Rating – 8.39</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	130	000	100	1.746 / 2.517	4.263
064	149	200	220	2.472 / 3.243	5.715
128	155	300	340	3.923 / 4.694	8.617
256	158	540	540	6.825 / 7.596	14.421
512		720	720	12.630/13.401	26.031
<b>Total</b>	<b>593</b>	<b>1760</b>	<b>1920</b>		<b>59.047</b>
%	.95	1.0	1.0		.85

Optimize Multiclient Mixing – Off

<b>Presonus Quantum : Driver UC 2.1.1 : LLP Rating - 8.30</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	100	000	000	0.907/1.088	2.085**
064	125	160	180	1.633/1.814	3.533**
128	135	240	260	3.084/3.265	6.434**
256	141	420	440	5.986/6.168	12.245**
512		600	600	11.791/11.973	23.853**
<b>Total</b>	<b>501</b>	<b>1420</b>	<b>1480</b>		<b>48.15</b>
%	.81	.80	.78		1.04

\*\* RTL Calculated Via Utility

<b>Lynx TWO-C : Driver 2.19 : LLP Rating – 8.29</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	130	000	000	2.222/1.633	3.855
064	143	200	240	2.948/2.358	5.306
128	152	300	360	4.399/3.810	8.209
256	160	500	540	7.302/6.712	14.014
512		620	700	13.107/12.517	25.624
<b>Total</b>	<b>585</b>	<b>1620</b>	<b>1840</b>		<b>57.008</b>
%	.94	.92	.96		.88

Double Playback Buffering – Off

<b>MOTU 424 : 24 I/O : Driver 1.6.9.5 : LLP Rating – 7.68</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	115	000	000	1.224/1.247*	3.673**
064	135	100	180	1.950/1.973*	5.125**
128	147	260	300	3.401/3.424*	8.027**
256	152	500	520	6.304/6.327*	13.832**
512		620	620	12.109/12.132*	25.442**
<b>Total</b>	<b>549</b>	<b>1480</b>	<b>1620</b>		<b>56.099</b>
%	.88	.84	.84		.89

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>RME Babyface Pro : Driver 1.099 : LLP Rating – 7.59</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	122	120	160	1.973 / 2.358	4.325**
128	144	260	280	3.424 / 3.810	7.242**
256	151	500	520	6.327 / 6.712	13.047**
512		620	620	12.132/12.517	24.644**
<b>Total</b>	<b>417</b>	<b>1500</b>	<b>1580</b>		<b>49.258</b>
%	.67	.85	.82		.97

\*\* RTL Calculated Via Utility

<b>UA Apollo Twin Mk II : Driver 9.30 : LLP Rating - 7.54</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	090	000	000	*2.653/1.293	3.946
064	125	180	200	*3.379/2.018	5.397
128	144	260	280	*4.830/3.469	8.299
256	157	460	480	*7.732/6.372	14.104
512		680	680	*13.537/12.177	25.714
<b>Total</b>	<b>516</b>	<b>1580</b>	<b>1640</b>		<b>57.46</b>
%	.83	.89	.85		0.87

\*Input Delay Compensation Off

<b>RME Fireface UCX FW : Driver 3.118 : LLP Rating – 7.45</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	139	180	220	1.927 / 3.220	5.154**
128	145	280	300	3.379 / 4.671	8.057**
256	148	500	520	6.281 / 7.574	13.862**
512		620	620	12.0860/13.379	25.471**
<b>Total</b>	<b>432</b>	<b>1580</b>	<b>1660</b>		<b>52.544</b>
%	.70	.89	.87		.90

\*\* RTL Calculated Via Utility

<b>RME Fireface UCX USB : Driver 1.01 : LLP Rating – 7.42</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	118	120	180	2.086 / 2.472	4.565**
128	140	260	280	3.537 / 3.923	7.467**
256	148	500	520	6.446 / 6.825	13.268**
512		620	620	12.245/12.630	24.882**
<b>Total</b>	<b>406</b>	<b>1500</b>	<b>1600</b>		<b>50.182</b>
%	.65	.85	.83		.95

\*\* RTL Calculated Via Utility

ESI Julia XTe : Driver 1.14 : LLP Rating – 7.27					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	105	120	140	1.451*/1.451*	4.138**
128	136	240	260	2.902*/2.902*	7.076**
256	160	480	480	5.805*/5.805*	13.18**
512		600	600	11.610*/11.610*	24.745
<b>Total</b>	<b>401</b>	<b>1440</b>	<b>1500</b>		<b>49.139</b>
%	.65	.82	.78		0.97

\* I/O reported latencies are nominal

\*\* RTL Calculation by RTL Utility

Mackie Onyx BlackBird : Driver 4.1.0 : LLP Rating – 7.22					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	85	000	000	1.224/1.905*	3.605**
064	116	80	180	1.905/2.630*	5.061**
128	140	260	280	3.401/4.082*	7.966**
256	143	480	500	6.304/6.984*	13.676**
512		600	600	12.109/12.789*	25.376**
<b>Total</b>	<b>484</b>	<b>1420</b>	<b>1560</b>		<b>55.684</b>
%	.78	.80	.81		.90

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

RME Fireface UFX FW : Driver 3.034 : LLP Rating – 7.19					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	140	180	220	1.950 / 3.696	5.646
128	145	280	300	3.401 / 5.147	8.548
256	148	500	520	6.304 / 8.050	14.354
512		620	620	12.109/13.855	25.964
<b>Total</b>	<b>433</b>	<b>1580</b>	<b>1660</b>		<b>54.512</b>
%	.70	.89	.86		.87

Earlier Driver sans Multiclient Mixing Option

RME Fireface UFX USB : Driver 0.984 : LLP Rating – 7.08					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	118	120	180	2.063 / 2.993	5.056
128	140	240	260	3.515 / 4.444	7.959
256	148	500	520	6.417 / 7.347	13.764
512		620	620	12.222/13.152	25.374
<b>Total</b>	<b>406</b>	<b>1480</b>	<b>1580</b>		<b>52.153</b>
%	.65	.84	.82		.91

UA Apollo X8 : Driver 9.90 : LLP Rating - 7.03					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	097	000	000	*2.653/1.293	4.739
064	126	180	200	*3.379/2.018	6.190
128	144	280	300	*4.830/3.469	9.093
256	159	480	500	*7.732/6.372	14.898
512		680	680	*13.537/12.177	26.508
<b>Total</b>	<b>526</b>	<b>1620</b>	<b>1680</b>		<b>61.428</b>
%	.78	.92	.87		.82

\*Input Delay Compensation Off

AVID Mbox Pro 3 : Driver 1.0.11 : LLP Rating - 6.97					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	134	140	200	2.517/2.517*	5.895**
128	148	280	300	3.968/3.968*	8.775**
256	152	500	520	6.871/6.871*	14.603**
512		620	620	12.676/12.676*	26.212**
<b>Total</b>	<b>434</b>	<b>1540</b>	<b>1640</b>		<b>55.485</b>
%	.70	.87	.85		.86

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

RME Fireface 800 : Driver 3.034 : LLP Rating - 6.93					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	140	160	220	2.472 / 3.628	6.100
128	145	280	300	3.923 / 5.079	9.002
256	148	500	520	6.825 / 7.982	14.807
512		620	620	12.630/13.787	26.417
<b>Total</b>	<b>433</b>	<b>1560</b>	<b>1660</b>		<b>56.326</b>
%	.70	.88	.86		.84

Earlier Driver sans Multiclient Mixing Option

RME Babyface : Driver 0.984 : LLP Rating - 6.88					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	123	140	180	2.698/2.880	5.578
128	140	260	280	4.150/4.331	8.481
256	152	500	520	7.052/7.234	14.286
512		600	600	12.857/13.039	25.896
<b>Total</b>	<b>415</b>	<b>1500</b>	<b>1580</b>		<b>54.241</b>
%	.67	.85	.82		.87

Focusrite Saffire Pro 24 : Driver 4.0.0 : LLP Rating – 6.86					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	91	000	000	1.224/1.905*	4.444**
064	124	140	160	1.905/2.630*	5.897**
128	140	260	280	3.401/4.082*	8.800**
256	148	480	500	6.304/6.984*	14.605**
512		600	600	12.063/14.059*	26.215**
<b>Total</b>	<b>503</b>	<b>1480</b>	<b>1540</b>		<b>59.961</b>
%	.81	.84	.80		.84

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

M-Audio Profire 610 : Driver 6.09 : LLP Rating – 6.76					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	126	160	200	3.152 / 3.152	6.304
128	148	280	300	4.603 / 4.603	9.206
256	152	500	520	7.506 / 7.506	15.012
512		620	620	13.311/13.311	26.622
<b>Total</b>	<b>426</b>	<b>1560</b>	<b>1640</b>		<b>57.144</b>
%	.69	.88	.85		.83

Preonus Firestudio Mobile : Driver 4.0.0 : LLP Rating – 6.65					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	91	000	000	1.224/1.905*	4.715**
064	121	140	160	1.905/2.630*	6.161**
128	140	260	280	3.401/4.082*	9.062**
256	148	480	500	6.304/6.984*	14.867**
512		600	600	12.063/14.059*	26.915**
<b>Total</b>	<b>500</b>	<b>1480</b>	<b>1540</b>		<b>61.720</b>
%	.81	.84	.80		.81

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

Apogee Duet : Driver 4.32 : LLP Rating – 6.24					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	126	000	000	2.290/2.540	4.785**
064	130	180	200	3.016/2.540	5.488**
128	142	280	300	5.465/4.535	9.955**
256	148	400	420	10.363/8.549	18.844**
512		620	620	16.168/12.540	28.638**
<b>Total</b>	<b>546</b>	<b>1480</b>	<b>1540</b>		<b>67.71</b>
%	.88	.84	.80		.74

\*\* RTL Calculated Via Utility

<b>MOTU 16A TB : Driver 4.0.8202 : LLP Rating – 6.16</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	127	000	000	1.088/1.841*	4.097**
064	138	160	140	1.814/3.265*	6.274**
128	150	280	300	3.265/6.168*	10.628**
256	165	480	500	6.168/11.973*	19.335**
512		680	680	11.973/23.583*	36.728**
<b>Total</b>	<b>580</b>	<b>1700</b>	<b>1760</b>		<b>77.062</b>
%	.95	.96	.91		.685

\* I/O not reporting AD/DA / Large extra buffering on playback

\*\* RTL Calculated Via Utility

<b>Focusrite Clarrett 2Pre TB : Driver FC 2.1.4 : LLP Rating – 6.11</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	136	000	000	2.222/2.222	4.510**
064	149	200	220	3.220/3.220	6.322**
128	158	300	320	5.306/5.306	10.677**
256	161	520	540	9.660/9.660	19.386**
512		660	660	18.367/18.367	36.794**
<b>Total</b>	<b>604</b>	<b>1680</b>	<b>1740</b>		<b>77.689</b>
%	.97	.95	.90		.64

\*\* RTL Calculated Via Utility

<b>Steinberg MR816 CSX : Driver 1.61 : LLP Rating – 6.10</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	79	000	000	1.746/3.923	5.669
064	119	120	180	2.472/4.649	7.121
128	125	240	280	3.923/6.100	10.023
256	132	500	520	6.825/9.002	15.827
512		620	620	12.630/14.807	27.437
<b>Total</b>	<b>455</b>	<b>1480</b>	<b>1600</b>		<b>66.077</b>
%	.73	.84	.83		.75

<b>Focusrite Scarlett 6i6-G2 : Driver FC 2.1.5 : LLP Rating – 5.80</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032 (016)*	090	000	000	2.041/2.041	4.150**
064 (032)*	116	060	060	2.404/2.404	4.680**
128 (064)*	132	180	200	4.104/4.104	8.037**
256 (128)*	140	260	280	6.533/6.533	12.955**
512 (256)*		500	520	12.494/12.494	24.863**
<b>Total</b>	<b>478</b>	<b>1000</b>	<b>1060</b>		<b>54.685</b>
%	.77	.57	.55		.91

\*Buffers as per Corrected Values ( Panel Setting in Brackets )

\*\* RTL Calculated Via Utility



<b>Antelope Discrete 8 USB : Driver 4.4.7 : LLP Rating – 5.75</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 10 x64					
032	121	000	000	2.222/2.494*	5.351**
064	125	160	180	2.948/2.494*	6.077**
128	135	240	260	5.397/4.490*	10.522**
256	143	420	440	10.295/8.503*	19.410**
512		600	600	16.100/12.494*	29.206**
<b>Total</b>	<b>524</b>	<b>1420</b>	<b>1480</b>		<b>70.566</b>
%	.84	.80	.77		.71

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>MOTU UltraLite Mk4 USB : Driver 4.0.8202 : LLP Rating – 5.67</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	127	000	000	1.088/1.841*	4.739**
064	138	160	140	1.814/3.265*	6.916**
128	150	280	300	3.265/6.168*	11.224**
256	165	480	500	6.168/11.973*	19.932**
512		680	680	11.973/23.583*	37.324**
<b>Total</b>	<b>580</b>	<b>1600</b>	<b>1660</b>		<b>80.135</b>
%	.94	.90	.86		.62

\* I/O not reporting AD/DA / Large extra buffering on playback

\*\* RTL Calculated Via Utility

<b>AVID Mbox 3 : Driver 1.0.19 : LLP Rating – 5.64</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	x	x	x	x	x
128	148	340	360	5.238/5.238	10.476
256	156	540	560	8.141/8.141	16.282
512		580	600	13.946/13.946	27.892
<b>Total</b>	<b>304</b>	<b>1460</b>	<b>1520</b>		<b>54.650</b>
%	.49	.82	.79		.80

RTL % calculated on buffers 128-512

<b>Roland Studio Capture : Driver 1.0.1 : LLP Rating – 5.60</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	128	000	080	1.837/3.333*	5.320**
064	158	180	200	2.562/5.125*	7.788**
128	163	260	300	4.014/8.118*	12.275**
256	171	520	540	6.916/13.878*	20.937**
512		640	640	12.721/25.375*	38.219**
<b>Total</b>	<b>620</b>	<b>1600</b>	<b>1760</b>		<b>84.539**</b>
%	1.0	.90	.91		.59

\* Double Buffering on Playback

\*\* RTL Calculated Via Utility

<b>M-Audio Fastrack Ultra 8R : Driver 6.08 : LLP Rating – 5.45</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	x	x	x	x	x
128	146	300	360	5.397/5.397	10.794
256	156	540	560	8.299/8.299	16.598
512		580	580	14.104/14.104	28.208
<b>Total</b>	<b>302</b>	<b>1420</b>	<b>1500</b>		<b>55.600</b>
%	.48	.80	.78		.79

RTL % calculated on buffers 128-512

<b>NI Complete Audio 6 : Driver 3.00 : LLP Rating – 5.38</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	120	100	100	.3.917/5.079*	8.788**
064	128	200	200	3.923/5.805*	10.240**
128	131	260	260	5.374/7.256*	13.136**
256	132	500	500	8.277/10.159*	18.947**
512		580	600	14.082/15.964*	30.557**
<b>Total</b>	<b>511</b>	<b>1640</b>	<b>1660</b>		<b>81.668</b>
%	.82	.93	.86		.61

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>Prism Orpheus : Driver 1.07 : LLP Rating – 5.26</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	118	000	000	2.268/2.676*	5.971**
064	115	40	160	3.039/3.447*	7.551**
128	140	260	280	4.535/5.442*	12.997**
256	152	480	500	7.528/9.443*	18.984**
512		560	580	13.515/16.417*	30.957**
<b>Total</b>	<b>525</b>	<b>1340</b>	<b>1620</b>		<b>76.46</b>
%	.85	.76	.79		.68

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>Steinberg UR44 : Driver 2.1.0 : LLP Rating – 5.06</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	132	220	240	4.240/5.215	9.455**
128	144	300	340	6.689/7.664	14.353**
256	148	520	540	9.592/11.565	21.157**
512		640	660	16.395/19.365	35.760**
<b>Total</b>	<b>424</b>	<b>1680</b>	<b>1780</b>		<b>80.725</b>
%	.69	.95	.93		.59

\*\* RTL Calculated Via Utility

Presonus Studio 68 : Driver UC 2.5.2 : LLP Rating – 5.04					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	99	40	60	2.789/2.857*	6.104**
064	99	100	120	3.515/2.857*	6.927**
128	124	240	260	5.964/4.853*	11.277**
256	135	440	460	10.862/8.866*	20.191**
512		520	520	16.667/12.857*	29.989**
<b>Total</b>	<b>457</b>	<b>1340</b>	<b>1420</b>		<b>74.488</b>
%	.74	.76	.74		.67

\* I/O not reporting AD/DA , Hidden Buffers

\*\* RTL Calculated Via Utility

Steinberg UR28M : Driver 1.1.1 : LLP Rating – 4.92					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	136	220	240	5.283/5.261*	10.363**
128	146	300	340	6.735/7.710*	14.263**
256	150	520	540	9.637/11.610*	21.247**
512		640	660	16.440/19.410*	36.669**
<b>Total</b>	<b>432</b>	<b>1700</b>	<b>1780</b>		<b>83.730</b>
%	.70	.96	.93		.57

\*\* RTL Calculated Via Utility

Audient iD4 : Driver 4.00 : LLP Rating – 4.85					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	57	000	000	2.222/2.494*	4.880**
064	76	040	060	2.948/2.494*	5.628**
128	120	220	240	5.397/4.490*	10.050**
256	136	400	420	10.295/8.503*	18.961**
512		540	560	16.100/12.494*	28.780**
<b>Total</b>	<b>389</b>	<b>1200</b>	<b>1280</b>		<b>68.299</b>
%	.63	.68	.66		.73

\* I/O not reporting AD/DA , Hidden Buffers.

\*\* RTL Calculated Via Utility

ESI MAYA44e : Driver 2.0 : LLP Rating – 4.75					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	128	140	180	1.451*/1.451*	11.348**
128	145	260	280	2.902*/2.902*	12.822**
256	152	480	500	5.805*/5.805*	18.604**
512		600	620	11.610*/11.610*	36.019**
<b>Total</b>	<b>425</b>	<b>1480</b>	<b>1580</b>		<b>78.793</b>
%	.68	.84	.82		.63

\* I/O and RTL reported latencies are nominal

\*\* RTL Calculation by RTL Utility showing double playback + hidden buffers

<b>Audient iD22 : Driver 4.00 : LLP Rating -4.61</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	100	00	00	2.222/2.494*	7.093**
064	107	120	140	2.948/2.494*	7.842**
128	124	220	240	5.397/4.490*	12.347**
256	136	400	420	10.295/8.503*	21.220**
512		540	560	16.100/12.494*	31.016**
<b>Total</b>	<b>467</b>	<b>1280</b>	<b>1360</b>		<b>79.518</b>
%	.75	.72	.70		.63

\* I/O not reporting AD/DA , Hidden Buffers.

\*\* RTL Calculated Via Utility

<b>MOTU 828 Mk3 Hybrid FW : Driver 4.05 : LLP Rating - 4.49</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	121	80	180	2.653/3.243*	7.788**
128	144	240	240	4.104/6.145*	12.302**
256	148	480	480	7.007/11.950*	21.009**
512		600	600	12.812/23.560*	38.417**
<b>Total</b>	<b>413</b>	<b>1400</b>	<b>1500</b>		<b>79.516</b>
%	.67	.79	.78		.60

\* I/O not reporting AD/DA / Large extra buffering on playback

\*\* RTL Calculated Via Utility

<b>Presonus AudioBox 44 VSL : Driver 1.57 : LLP Rating - 4.25</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	086	000	000	2.449/2.449*	7.323**
128	100	140	160	3.900/3.900*	10.227**
256	124	300	400	6.803/6.803*	15.950**
512		540	540	12.608/12.608*	27.561**
<b>Total</b>	<b>310</b>	<b>980</b>	<b>1100</b>		<b>61.061</b>
%	.50	.55	.57		.78

\* I/O not reporting AD/DA , Hidden Buffers

\*\* RTL Calculated Via Utility

<b>Midas Venice F : Driver 3.5.3 : LLP Rating - 4.01</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	055	000	000	1.905/3.900*	6.576**
128	100	120	180	3.356/5.351*	9.478**
256	119	240	260	6.259/8.254*	15.306**
512		560	580	12.063/14.059*	26.915**
<b>Total</b>	<b>274</b>	<b>920</b>	<b>1020</b>		<b>58.275</b>
%	.44	.52	.53		.82

\* I/O not reporting AD/DA

\*\* RTL Calculated Via Utility

<b>MOTU 828 Mk3 Hybrid USB : Driver 4.05 : LLP Rating – 3.96</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	108	40	120	2.653/3.243*	8.960**
128	128	220	240	4.104/6.145*	13.190**
256	143	420	460	7.007/11.950*	21.956**
512		600	600	12.812/23.560*	39.366**
<b>Total</b>	<b>379</b>	<b>1280</b>	<b>1420</b>		<b>83.472</b>
%	.61	.73	.74		.57

\* I/O not reporting AD/DA / Large extra buffering on playback

\*\* RTL Calculated Via Utility

<b>UAD Apollo Twin USB3 : Driver 9.02 : LLP Rating – 3.69</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	090	000	000	*3.946/3.946	8.250**
128	096	120	160	*6.395/6.395	11.149**
256	106	280	300	*12.404/12.404	16.654**
512		580	600	*24.195/24.195	28.564**
<b>Total</b>	<b>242</b>	<b>980</b>	<b>1060</b>		<b>64.617</b>
%	.39	.55	.55		.74

\*Input Delay Compensation Off

\*\* RTL Calculated Via Utility

<b>ESI U46 XL : Driver 3.0 : LLP Rating – 3.12</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	132	200	220	1.451*/1.451*	10.515**
128	144	300	380	2.902*/2.902*	12.488**
256	152	540	560	5.805*/5.805*	24.325**
512		x	x	x	x
<b>Total</b>	<b>428</b>	<b>1040^</b>	<b>1160^</b>		<b>47.328^</b>
%	..69	.59	.60		.49

^ Highest buffer setting of 256 , RTL % calculated on buffers up to 256

\* I/O and RTL reported latencies are nominal

\*\* RTL Calculation by RTL Utility showing double playback + safety buffers

<b>Makie Onyx 1640i ( Pre Dice ): Driver 1.9.0 : LLP Rating – 2.74</b>					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	81	000	000	.726*/.726*	5.410**
064	114	120	140	1.451*/1.451*	9.515**
128	127	160	180	2.902*/2.902*	15.524**
256	136	240	260	5.805*/5.805*	30.809**
512		560	580	11.610*/11.610*	58.134**
<b>Total</b>	<b>458</b>	<b>1080</b>	<b>1160</b>		<b>119.392</b>
%	.74	.61	.60		.42

\*I/O and RTL reported latencies are nominal.

\*\* RTL Calculated by Utility, showing multiple playback + safety buffers

Listed buffer settings have absolutely no correlation to latency delivered.

Echo AudioFire12 : Driver 5.50 : LLP Rating – 2.29					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	130	140	180	4.354/5.805*	12.177**
128	148	260	280	5.805/8.707*	20.952**
256	152	480	500	8.707/14.512*	38.413**
512		600	620	14.512/26.122*	NRA***
<b>Total</b>	<b>430</b>	<b>1480</b>	<b>1580</b>		<b>80.542^</b>
%	.69	.84	.82		.29

\* Output reporting differently on alternate DAW Hosts.

\*\* RTL Calculated by Utility, showing multiple playback + safety buffers

\*\*\*512 Value unavailable due to crashing.

^ RTL % Calculated for Buffers 064-256

Presonus Studio 192 : Driver UC 1.5.1 : LLP Rating – 1.91					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
064M	082	000	000	4.785/4.603	8.907**
128L	092	080	100	7.234/7.052	13.825**
256S	099	160	180	12.132/11.950	24.082**
512R		280	280	17.937/21.769	39.706**
<b>Total</b>	<b>273</b>	<b>520</b>	<b>560</b>		<b>85.521</b>
%	.44	.30	.29		.56

Default Paired Safety / Buffer

\*\* RTL Calculated Via Utility

Focusrite Saffire 6 USB : Driver 1.9.0 : LLP Rating – 1.81					
BUFFER	RXC	CV	NCV	I/O	RTL
Windows 7 x64					
032	x	x	x	x	x
064	068	000	060	4.218/5.669	9.887
128	072	080	080	7.120/10.020	17.140
256	130	240	240	12.925/18.730	31.655
512		480	520	24.530/36.145	60.675
<b>Total</b>	<b>270</b>	<b>800</b>	<b>900</b>		<b>119.357</b>
%	.44	.45	.47		.39

Large safety buffers + double/triple buffering on Input/Output

Listed buffer settings have absolutely no correlation to latency delivered.

### Benchmarks Used :

DAWbench DSP – Reference Plugin : ReaFX – ReaXComp

DAWbench VI – Reference VI : Native Instruments - Kontakt 4